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# East Europe Report

## ECONOMIC AND INDUSTRIAL AFFAIRS

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9 January 1985

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**ECONOMIC AND INDUSTRIAL AFFAIRS**

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FINANCE MINISTER VIEWS PLANNED MANAGEMENT IMPROVEMENTS

Prague FINANCE A UVER in Czech No 9, 1984 pp 578-588

[Article by Eng Leopold Ler, CSc, CSSR minister of finance and chairman of the Government Commission for Planned Economic Management: "Continuing Improvement in the Planned Management System"]

[Text] The current year has been characterized, within the overall context of efforts by working people under the leadership of the CPCZ to fulfill the resolutions of the 16th Congress and the tasks of the Seventh 5-Year Plan, by intensive work to improve the system of planned management and to improve the efficiency of the entire economic system.

An article commemorating the 15th anniversary of the CPCZ Central Committee plenum of April 1969, when Comrade Gustav Husak was chosen as general secretary, contains the following: "The system of planning and economic management must also assist in progressive development. In the Seventh 5-Year Plan the Set of Measures To Improve the Planned Management System of the National Economy took effect, and is being gradually refined in accordance with growing demands for economic intensification. It is an instrument for increasing the sophistication of managerial, planning and organizational activity, for increasing quality and efficiency, for facilitating a more consistent implementation of the socialist principles of compensation according to social contributions, quality and amount of work. It has been shown to contribute to a strengthening of state and labor discipline, to managerial operations and order in the workplace."

This basic statement is based on an ongoing analysis of the complex of measures which, based on preceding experiments in 1978-1980 in 12 important economic production units [VHJ], was adopted throughout the national economy, and on an analysis of all elements of the economic system, the areas of achievement and those of persistent shortcomings and deficiencies.

The situation at the midpoint of 1984 was best summarized in the words of Comrade Gustav Husak at the closing speech of the 10th CPCZ Central Committee Plenum.

"On the basis of previous experience and in the context of improving the sophistication of planning and national economic management, intensive work is

proceeding on additional proposals for improving the Set of Measures for the Eighth 5-Year Plan. It is essential to refine the functioning of the economic system, to increase the efficiency of economic mechanisms and to achieve greater flexibility and initiatives at all management levels."

Specifically, the resolution of the 10th CPCZ Central Committee Plenum provides that: "In the interest of fulfilling the tasks of the Seventh 5-Year Plan it is essential to improve the planning and management of the machine-building and metallurgical complex, to utilize better the provisions of the Set of Measures, to strengthen direct management, labor and technological discipline, increase accountability and conduct regular inspections."

The resources we will be drawing on in the further development of planned management in the CSSR, especially during the Eighth 5-Year Plan, consist of:

- experiences from the application of the Set of Measures in 1981-1983;
- resolutions of the 8th, 9th, and 10th CPCZ Central Committee Plenums regarding the acceleration of R&D implementation, the growth rate of the national economy, and the more consistent implementation of intensive management techniques;
- the experiences of fraternal socialist countries, especially experiences in improving planned management in the Soviet Union, all of which will be applied to specific experiments in the years 1984-1985.

The Set of Measures To Improve the Planned Management System represents an important step on the way to the purposeful and permanent improvement of planned management, a step aimed at introducing a comprehensive package of incentives throughout the entire system of planning, management, and indeed the entire economic system for high quality, highly productive work, order and discipline, managerial efficiency, initiative, healthy entrepreneurship and personal responsibility, so that the shift of the economy to an intensive development mode can proceed at the required pace.

The Set of Measures is not only a set of changes in regulations that adjust, for the purposes of the Seventh 5-Year Plan, certain elements of planning, economic incentives, khorraschot and organizational arrangements. We consider it to be a pragmatic document that creates the opportunity for the implementation of additional steps toward a qualitative transformation of the whole system of planned management. The set formulates a number of principles, the consistent implementation of which will realistically require a long-term process dependent not only on the quality of the management system but above all on the development of certain material conditions in the economy.

After evaluating the findings from the current period of implementation of the Set of Measures by organs of the CPCZ and CSSR Government, it was stated that we have made the first important step on the way to an intensification of the production process. The Set of Measures has improved both plan fulfillment and economic performance in meeting qualitative indicators, particularly in reducing material costs, increasing the generation of value added and

increasing the growth rate of the return on production assets. It has played a role in reducing nonproduction costs and losses due to low-quality products, increasing the percentage of highly technically sophisticated products and improving the fulfillment of supply commitments to the main areas of usage of industrial production.

In other words, an evaluation of current results of the implementation of the Set of Measures indicates that the adopted principles have properly focused the entire economic sphere on issues of intensifying economic development and assuring the execution of the strategy embodied in the economic policy of the CPCZ. The implementation of the Set of Measures has made a significant contribution to the discovery of underutilized capacities and their mobilization for the resolution of the serious problems of the past 3 years. The impact has depended to a large extent on the initiative, consistency and tenacity with which employees have approached the practical implementation of this improved management system in individual enterprises, VHJ's, ministries and industrial planning agencies.

This year measures are being implemented to speed up R&D as provided for in CSSR Government Resolution No 1/1983, techniques are being explored for more closely linking up production with foreign trade, and for operating a unified investment fund. Regulations are being refined governing the development of wages related to the final results of work that benefits society.

In conjunction with work on the long-term prospects for Czechoslovak economic development in 1985-1995, and specifically for the Eighth 5-Year Plan, measures have been approved that further deepen and refine the Set of Measures. Emphasis has been placed on the material and systemic coordination of decisions related to the Eighth 5-Year Plan, their effective integration and implementation within worker collectives.

A crucial area of planned management improvement lies in the role of the plan itself and planning.

The Set of Measures has directed that those involved in the planning process, as the crucial element of the entire economic system and the fundamental management mechanism, work on strengthening above all its long-range orientation and internal coordination. A 5-year plan based on a concept of long-term economic and social development has been defined as the basic plan.

The requirements of strengthening the long-term outlook of planning and making the 5-year plan the fundamental plan have been implemented gradually throughout the Seventh 5-Year Plan. Important changes in external economic conditions which occurred at the end of the 1970's and early 1980's necessitated a complete reevaluation of the objectives of the Seventh 5-Year Plan. This meant that the Seventh 5-Year Plan was finally completed and available to organizations of the enterprise economic sphere only in the first half of 1982. The full application of the 5-year plan to the development of annual plans therefore took place beginning with the 1983 plan.

Moreover, at the time of preparation of the Seventh 5-Year Plan work had not progressed far enough on a concept of long-range development for this plan to make effective use of it.

The problems of stability and flexibility are of greatest concern in relation to the function of the 5-year plan as the fundamental management mechanism. For individual levels of management this stability means little or no change in all tasks, inputs and prices.

We have not yet been successful in incorporating the greater efficiency of counterplanning in the formulation of annual plans, which would result in greater worker participation in plan formulation. This has been caused primarily by a low degree of specification of plan tasks and economic incentive programs at the workplace level, and the inconsistent application of counterplanning regulations with regard to the degree of mobilization of plan drafts by organizations and the corresponding preferences or penalties.

To assure plan proportionality and a higher degree of internal coordination and integration a system of balances has been developed and is being constantly improved. This includes the balancing of investment projects with needed deliveries of components, improvements in the balances of standardized consumption at all levels, etc. At present only one of the functions of these balances is being used, namely the allocation function. We have still not fully mastered the use of the balances as instruments for predicting future requirements and actively matching these requirements up with available resources.

Greater internal plan coordination has been accomplished above all within individual constituent parts of a plan (the development of noncompleted construction projects, external economic equilibrium, the assurance of critical construction projects, the matching up of supply and demand for workers).

Shortcomings persist in relationships among the material objectives of the state plan, the finance and credit plan, among material and value categories and especially between the research and development plan and other parts of the plan.

Planning will be further improved in the following major areas:

The strengthening of the long-term character of planning will depend on work on a long-term strategy and the incorporation of its objectives into the Eighth 5-Year Plan and its priorities (state priority and R&D programs, major capital construction projects and the international division of labor); over the long term and in the Eighth 5-Year Plan a comprehensively conceived system of criteria of economic efficiency is to be implemented which will evaluate the final contributions to society (national income, adjusted value added, profits, exchange relations, etc.).

This system of criteria will form the basis for the establishment of plan tasks and standards for economic incentives and serve as a guideline for the allocation of raw materials, fuel and power resources, capital assets and

foreign currency. This will enable these resources to find their way to those organizations which will put them to the best national economic use. The norms will be adjusted only if there are major changes in the original conditions.

Valuational managerial instruments (finance, prices, exchange rates, loans and interest rates) will be more actively involved in plan formulation.

The achievement of greater efficiency by implementing R&D results will be facilitated by a system of indicators of product technical-economic sophistication and the wider application of price limits and limits on basic material resources.

To further strengthen internal plan coordination it will be necessary to:

--more completely link material and valuational plan criteria;

--increase the role of the aggregate financial plan; in particular, to assure a correspondence between the development of material resources and the monetary resources of individuals and organizations;

--incorporate more consistently material balances and measures to rationalize material consumption into the financial plan;

--intensify the ties between the R&D plan and the other parts of the plan, to provide more completely for the needs of R&D in certain parts of the plan, and to more closely integrate R&D contributions into the other parts of the plan;

--intensify the ties between sectoral and territorial viewpoints with the objective of more efficiently utilizing the potential of territorial units, to foster the comprehensive development of territorial entities by further enhancing the financial and economic relations between national committees and organizations functioning in their area of jurisdiction.

The area of wage policy will always be a very sensitive aspect of planned management.

The Set of Measures has fundamentally changed the content of the plan in terms of the indicators that form the basis of material incentives. To manage the development of wages payable resources it has shifted to a net production indicator, to an adjusted value added indicator for the base component of wages, and to a return on production assets indicator for the incentive component of wages.

This change has contributed to a positive development in the material intensiveness of production, which has been declining faster than in previous 5-year plans and even more rapidly than projected by the Seventh 5-Year Plan (while material costs declined by 0.5 percent in the Sixth 5-Year Plan, declines in 1981-1983 averaged 1.4 percent).

These are positive results even given the fact that organizations are utilizing above all reserves that they accumulated under the previous system, which used

indicators that included all embodied labor. They are restricting inefficient cooperation, which is one of the reasons for declining transportation usage, for declines in the consumption of expensive materials, etc.

The positive results have also undoubtedly been contributed to by stricter limitations by the plan on certain material inputs, primarily fuel and power resources.

In line with the principles of the Set of Measures, in 1982 there began a further expansion of the system for allocating wages payable resources and its role as an incentive by eliminating the number of employees requirement originally mandated by the state plan, with all of the wages payable due to workers whose jobs are eliminated remaining at the disposal of the organization for use in raising the average wages of the remaining employees of the organization. The first positive results of this program became evident in 1983.

The system for allocating wages payable resources has basically proven itself even though it has fulfilled its tasks in a less than rigorous environment. It is, however, very demanding of administrative time and is quite complicated (requiring dual component regulation, amounts that have to be calculated, conditioning indicators, etc.).

The generally low standards for the allocation of wages payable resources, as well as the potential for accumulating unwanted inventories or focusing production on less demanding markets, the considerable isolation of the wages payable allocation system from the results of foreign trade results, and certain systemic differences, result in a situation in which the development of wages payable resources does not proceed in conjunction with the development of the national income, with the wage intensiveness of the national income increasing.

For this reason, supplementary economic incentives have been adopted, among them increasing the penalties assessed against wages payable resources by deducting penalty interest sanctions imposed by banks, tightening up the calculation of claims on wages payable resources when planned targets are exceeded, and others.

The experiences of the past 3 years have indicated that the return on production assets indicator cannot, under certain conditions, effectively influence the utilization of production assets (capital stock and inventories). It has furthermore become evident that this indicator is basically more appropriate for the long-term evaluation of the efficiency of expended resources than for the short-term (annual) management of wage development.

The following measures are being counted on to increase the efficiency of the Set of Measures in this area:

--the implementation of a single component system based solely on adjusted value added, adjusted for interest payments on loans and excluding the results of foreign trade;

--standards for the volume of wages payable available to economic organizations (overall volume including the bonus fund) will be tightened up primarily by applying, instead of a leveling standard, a standard that reflects the connection between the growth of these resources and the growth of adjusted values added, with the caveat that a supervisory organization may also apply a leveling standard (especially if it is not counting on an increase in adjusted values added or a reduction of their wage intensiveness).

The starting point for determining an increase during plan formulation will be the anticipated level of adjusted values added and the resultant volume of wages payable resources, with the actual volume of adjusted values added and the utilized volume of wages payable resources for the previous year being used if the increase is to be determined during plan confirmation.

The defined volume of the bonus fund will be important within the context of the planned overall volume of wages payable resources. The basis, however, will be its current level, which will be gradually increased and unified within the plan.

The bonus fund will be created from disposable profits up to the amount of wages payable resources saved in comparison with their usable volume. The bonus fund will also be used to pay annual bonuses to senior managers and, in some instances, to fund contributions for a membership in stabilization apartment construction.

The area of investment is not only critical for the fulfillment of future development objectives of the Czechoslovak economy, but is also a source of current problems related to specific projects in practically all areas of public life.

The Set of Measures contains a category of limited investments financed by a development fund generated by standardized transfers from profits and depreciation. This measure has proven to be effective. It has increased khozraschet incentives in the development and allocation of investment resources, reduced instances of the exceeding of this category of investment, and increased the orientation toward reconstruction and modernization. This has resulted, however, in a softening and other permanent changes in standards, which has made it a matter of adjusting the norms to the annual plan.

Since early in 1983, four industrial sectors have been experimenting with the replacement of the existing two investment funds (the capital construction fund and the development fund) with a single investment fund that would be generated on the basis of standards with the caveat that the budgeted costs for already initiated projects would be firmly set.

In terms of overall capital asset replacement, however, serious shortcomings persist in the level of its utilization and in the phasing out of unnecessary capital equipment. In capital construction as well the difficulties of previous years are again occurring. Conflicts persist between the types of capabilities that are available and the types of construction projects needed.

There continues to be inadequate planning and contractor discipline. The system of planning and economic instruments as yet does not have adequate influence here.

To increase the efficiency of investment, project invoicing was introduced as of 1 January 1984.

Existing measures will be expanded in the following areas:

--the current limit of Kcs 2 million in budgeted costs will be increased to Kcs 5 million in budgeted costs, and the investment fund will be extended to all economic organizations, with the means of formation of the fund adapted to the specific conditions of each organization (nonindustrial enterprises will form theirs by transferring unallocated profits, etc.). The principle of strict merit will be adhered to for the formation of financial resources and the appropriate reserves. This will serve to increase the accountability of the economic sphere for investment efficiency and the formation of and return on financial resources.

The choice of construction projects and their inclusion among the binding tasks of the state plan in terms of design, subcontracting and implementation will be tied to resolutions by state experts who will place emphasis on their efficiency and urgency, as well as on the results of supplier-consumer negotiations during the planning process, and the actual possibilities for assuring the necessary resources.

Regarding other construction projects and machinery, central investing and contracting organs will focus on investment projects of a multisectoral character, with special emphasis on obtaining the results of R&D work, assuring state priority programs and comprehensive modernization.

At the same time, central investing organs are leaving sufficient opportunity for independent decision making by VHJ's (or enterprises) up to the level of centralized construction projects, provided that the rigorous criteria for investment effectiveness have been fulfilled (capacity utilization, efficiency of exports, facility modernization, etc.), and that the organization concerned defines the range of construction projects requiring its agreement.

Priority will be given to the assurance of outputs of R&D programs and state priority programs at all levels of management. At the state plan level, preparations for larger innovative projects will be monitored and evaluated. This includes projects with over Kcs 10 million in budgeted costs or Kcs 20 million in SZNR. Other projects will be assured at the level of economic plans (or at the level of the State Commission for Research, Development and Capital Investment) within the context of planned resources and the more effective pressure of economic instruments.

Fulfillment of the capital investment plan will be evaluated according to material results, i.e., by how well schedules are adhered to for the beginning of provisional facility operation, how well construction schedules are met, as well as deadlines for the construction components and invoiceable components.

For the more important projects the meeting of progress deadlines is also important (including the completion of construction components and invoiceable components). Economic incentives for senior managers will also be tied to the achievement of technical-economic parameters.

Regulations will be developed governing a reduction in the investment resources available to organizations and sectors during the formulation and implementation of a 5-year plan in instances when they fail to use their capital stock as provided for in applicable guidelines or the 5-year plan. These regulations will take the form of reduced standards for the formation of the investment fund in organizations and of sectoral limits, reductions in loans, reductions in the amount of profit that can be included in prices, etc.

In the area of prices, the Set of Measures has focused on improving the price system, on the gradual application of the criteria of the international division of labor to the domestic wholesale price system, and on the purposeful implementation of wholesale prices based on the evolution of the acquisition costs of fuel, power and raw material resources and on the further rationalization of price formation techniques for new products, while increasing the active role of prices in supporting the objectives and tasks of the national economic plan.

To improve the price system, a one-time and comprehensive modification of wholesale prices has been carried out, along with an updating of the price regulations. Other measures aimed at making prices more effective are still in the works and will take effect in 1985.

A need has become apparent for refining in the near future the approach to dealing with the consequences of price changes. Particular attention should be paid to the generalization of wholesale prices for outputs, above all in the processing industries. The amount of profit included in prices as well as production costs are substantially out of line with foreign criteria and do not exert adequate pressure for innovation. Price limits are insufficiently utilized as criteria for the efficiency of future production.

The improvement of the price system will include a continuation of the smooth implementation of wholesale prices with the objective of reducing the prices of final products.

The influence of the international division of labor on the objectivization of costs, profits, and prices will be further emphasized and intensified. The conditions of the international division of labor will be applied not only to producers of final output but also to their subcontractors.

Prices are intended to contribute to an acceleration of R&D efforts, an improvement in its efficiency and practical application, an increase in the quality of and innovative activity in production. Price incentives will be provided only for products that can be effectively sold on international markets, with pricing penalties to be assessed against products that lag behind in international competition.

The Set of Measures set the foundations for the further development of kholzraschot with the emphasis on attaining the greatest possible efficiency and quality of work. It established the basic directions for its evolution in conjunction with the plan, strengthened the kholzraschot authority and responsibility of VHJ's as the basic management link in the kholzraschot sphere, and established a close connection between economic incentives for VHJ's and those for enterprises for economic performance. Recent experiences have confirmed the correctness of this focus of kholzraschot under demanding new economic conditions.

The designation of the VHJ as the basic management link in the kholzraschot sphere has become evident in different VHJ's in differing degrees of centralization of managerial functions. In some cases this has resulted in a weakening of economic incentives for enterprises, and thereby a weakening of their interest in improving managerial performance. This implies a need to strengthen enterprise kholzraschot by shifting to it greater possibilities for offering economic incentives in accordance with the concrete conditions of the VHJ.

Insufficient use is being made of internal enterprise kholzraschot, especially in the preproduction and postproduction stages. This weakens its influence on an acceleration of the application of R&D to production and on increasing economic incentives for the performance of internal enterprise divisions.

On the basis of recent experiences, kholzraschot is going to be extended in the following directions:

--the basic objectives of kholzraschot as contained in the Set of Measures are being retained in full. These include a unity of the plan and kholzraschot, a strengthening of the authority and responsibility of the enterprise managerial sphere and incentives for it to achieve economic performance;

--the forms of kholzraschot are to be adapted to the differentiated level of centralization of managerial functions within a VHJ and enterprise kholzraschot is to be strengthened by shifting to it the task of offering economic incentives in line with defining its responsibility for economic performance; the link between resource formation and use is to be applied more intensively than before to the areas of R&D, foreign trade, wages payable resources, investments and inventories;

--internal enterprise kholzraschot is to be implemented more consistently. This requires primarily an improvement in internal enterprise management, above all in planning, and in the introduction of effective forms of kholzraschot in pre- and postproduction operations;

--to improve internal enterprise management of technical development, product innovation, and changes in the structure of production, techniques are to be tested and introduced for the valuational analysis of the relationship between the evolving functional characteristics of products and the development of costs and prices.

Measures are to be developed for dealing with organizations that continue to manage their operations poorly, and will be based on the following considerations:

--poorly managed organizations will be provided a consolidation loan as a type of long-term credit assistance, on the condition that the supervisory VHJ or central organ will do what is necessary (economic or personnel changes, etc.) to improve the management of the organization. This loan will be granted on the basis of a consolidation program to last no more than 3 years and to be supervised by the parent VHJ or central organ. The consolidation loan may be called at the end of a year or during the above time frame if the organization does not fulfill the above measures or if there is no improvement in performance;

--if, at the end of a maximum of 3 years, there is not a fundamental improvement in performance, the supervisory central organ will submit to the appropriate government an analysis of the operations of the poorly managed organization with its recommendations for taking more drastic measures, for instance, to make production more efficient, change the production program, merge the organization into some other organization, or shift its production program to another organization.

The reserve fund will fulfill the role of the major source of VHJ reserves.

In financial management, the Set of Measures started the trend of increasing the role of in-house resources (profits and depreciation) for financing the organization, covering planned organizational requirements with actually generated in-house resources, and expanding economic incentive programs within an organization in line with its actual management performance.

A process has begun of limiting subsidies from the state budget as well as the redistribution of financial resources by means of the state budget between VHJ's.

This measure has proved itself worthwhile. The financial base has been strengthened, and thereby the material responsibility of the kholzraschot sphere by generating a system of funds at the VHJ and enterprise level supported by standardized contributions.

The following measures will be implemented in the area of financial management:

--planned resources available to VHJ's or enterprises will be made critical to the financing of planned requirements, with the objective of increasing the role of the financial plan and state budget;

--profit or loss from domestic operations is to be combined with profits or losses from foreign operations and distributed in a single way so as to increase the interest of production organizations in increasing the performance of foreign trade;

- a proposal will be developed to change the time of realization of a sale from the time of warehousing to the time of receipt of payment from the consumer, with the goal of realizing cash flows within the national economy and developing more effective pressure to increase sales;
- an increase in the role of financial resources allocation to funds should be tied to profit formation or growth, and the tie to the fulfillment of conditioning indicators phased out;
- redistribution among VHJ's should be restricted and the transferability of remaining fund balances increased;
- rates for contributions to social security should be consolidated and gradually raised with the objective of substituting new machinery for human labor;
- capital asset replacement should be financed primarily from internal organizational resources; at the same time, a minimal amount should be defined for depreciation that can be used to finance simple capital asset replacement at enterprises and VHJ's;
- in the financing of research and development the preconditions should be created for a smoother flow in the innovation cycle, particularly during the phase of result implementation, by more closely connecting the financing of R&D projects to the investments associated with their conduct and realization;
- in the financing of working capital, measures implemented in 1983 to assure planned inventory development should be supplemented by according priority to the use of in-house resources, primarily profits, instead of other sources for this financing.

During the Seventh 5-Year Plan there has been a gradual increase in the efficiency of bank currency instruments. The growth of loans is slowing down gradually and adjusting to the development of the basic macroeconomic indicators. The preconditions are being developed for the accelerating and better management of the payment relationship between organizations and the population. Foreign currency regulation has been tightened, particularly with regard to the balance of payments.

Nevertheless, we have still not succeeded in assuring an adequate correspondence between loan growth, income development and prices on the one hand, and the development of production, inventories of goods and the structure of these inventories on the other, which causes ongoing disequilibrium in parts of the economy.

The following measures have been designed to increase the efficiency of bank currency instruments:

- loan and interest rate conditions should be differentiated within the context of the proportions of the overall financial and currency plan and in line with efficiency criteria;

--loan collection activities should be more stringently enforced; loans will be denied to organizations displaying undesirable inventory growth or working capital growth; loan policy should be supported by the appropriate or essential procurement of raw materials and materials;

--use the release of loan and foreign currency resources going to capital construction to assure, first of all, the binding tasks of the state plan in accordance with their established qualitative parameters; release resources for all other capital investment projects strictly in accordance with efficiency criteria established for the formulation of the 5-year plan, with priority given to projects related to modernization and reconstruction;

--in cases of organizations with a long-standing imbalance in their financial situation, and which have used loans ineffectively, loans should be tied to measures related to cash requirements (the termination of the practice of reserving resources for wages, instituting a binding order for payments from the current account, giving priority to the payment of defaulted loans from in-house resources, etc.);

--currency conversion relationships for socialist and nonsocialist countries should be placed on a base of the actual average relationship of foreign and domestic export prices and the objectives of economic policy. These relationships then must be flexibly correlated to the needs of the formation and implementation of annual implementation plans so as to retain the original objectives of the 5-year plan;

--appropriate foreign currency reserves should be created and utilized to take advantage of unforeseen opportunities and to cover the risk in the trade balance;

--the forms must be expanded for the granting of foreign currency repayable loans especially to support R&D, modernization and efficiency enhancement projects, and exceptionally efficient imports for production consumption. The payback principle must be applied to plan formation, decisions regarding use, and when releasing other foreign currency resources for imports of technology from the nonsocialist countries.

The Set of Measures modified financial-economic instruments in foreign trade so as to provide incentives for organizations to increase the volume and efficiency of exports by allocating resources to the economic incentives for exports fund.

In conjunction with other management mechanisms these measures have not demonstrated their anticipated efficiency. This appears to be because insufficient incentives were provided to increase exports to the most demanding markets.

The reason for this situation is principally that production organizations, despite these measures, remain largely isolated from foreign commercial activities. Their economic incentive systems are therefore largely governed by

domestic economic considerations, not the requirements of demanding international markets.

The result of all these shortcomings is a low level of efficiency of the system in increasing the level of integration of our economy into the integrational programs of the CEMA.

Adhering to the objectives for the balance of payments has necessitated a reduction to the minimum of the extent of foreign currency incentives in comparison to the projections monitored by the Set of Measures.

With the objective of increasing the direct interest of production organizations in, and their responsibility for, exports and their efficiency, in recent years experimental verification has been conducted of measures to increase the efficiency of foreign commercial relations of selected VHJ's and foreign trade organizations [OZO].

The combination, beginning in 1984, of profits or losses from domestic operations with those from foreign operations in the entire general engineering sector is intended to attain the same objective. The following measures are intended to increase the managerial efficiency of foreign commercial relations:

--the combination of profits or losses from domestic and foreign operations will force organizations to take a greater interest in increasing the effectiveness of foreign trade; differentiated incentive payments from the state budget should be made to support this interest in exports;

--foreign currency incentives should be intensified, focused on the contribution to the balance of payments, and differentiated according to the efficiency of exports;

--more effective incentives should be provided for increases in profitable trade in machinery, specialization and cooperative ventures with socialist countries;

--various forms of effective integration of production and foreign trade should be expanded upon, and the maximum level of congruence achieved between techniques for setting targets, financing and material incentives of OZO's with those used by production organizations, with the objective of developing a unity of responsibility and interests. In conjunction with state plan objectives the responsibility of OZO's for the territorial structure of foreign trade should be increased with particular reference to the balance of payments and exports to specific areas. Incentive programs should also be focused on this objective;

--the responsibility of OZO's and production organizations should be increased for efficiency in foreign trade operations. The role of foreign currency revenues should be increased in OZO's and for selected production organizations to the extent that the economic and organizational conditions have been developed for them to influence these operations;

--there must be closer links between koruna and foreign currency incentives for the main producers of exported products and their subcontractors;

—with the objective of further developing the incorporation of our economy within socialist economic integration, a strategy must be developed for resolving differences in value relationships, especially price levels and exchange rates which would apply to the domestic economy based on our foreign trade relationships with both socialist and nonsocialist countries.

The current stage of implementation of the Set of Measures has not succeeded in making any more progress in the mobilization and utilization of critical and long-term factors of economic intensification. This amounts primarily to the more rapid practical application of the results of R&D work. The resolutions of the Eighth CPCZ Central Committee Plenum showed that the system as a whole does not yet generate enough pressure for innovation, and that the contribution of isolated measures to technical progress cannot be comprehensively equaled with the role of technical development in the intensification of the entire national economy.

The first step in the resolution of this problem consisted of the implementation of several new measures in five selected sectors beginning in 1984. In conjunction with this program we must consider the resolution of this problem, in line with the resolutions of the Eighth CPCZ Central Committee Plenum, as a crucial issue in the further development of the planned management system. To speed up the practical application of R&D results, the necessary measures must be taken in all areas of the planned management system. These include:

—the assurance of the critical objectives of state economic and technical policy in the state plan through the establishment of R&D programs, their incorporation into state priority programs, programs related to our incorporation into socialist economic integration, making these explicit in selected instances through binding plan tasks. Influence should be exerted on the enterprise economic sphere above all through a system of technical-economic indicators, limitations on basic material inputs and related standards;

—the mobilization and binding character of plan tasks and economic incentive programs must be used to generate rigorous conditions and pressure for innovative activity by the enterprise economic sphere, effective input by consumers and users regarding the technical and economic parameters of delivered products, and the readiness of products to meet the demands of technical development;

—capital construction must be focused more broadly than before on assuring the installation of the results of R&D work, supporting modernization and reconstruction projects with a rapid payback period, and for increasing the share of technology in overall investment costs;

—in the formation and utilization of funds and in the use of noninvestment resources to assure technical development requirements, the preconditions must be developed for the flexible replacement of factors of production and the realization of structural changes connected with the practical application of R&D results; investment loans, foreign currency repayable loans and foreign currency incentives must have the same objectives;

--senior managers and the workers of the technical divisions and work collectives, all of whom exert a decisive influence on the implementation of R&D progress, should be provided with increased incentives related to the qualitative aspects of production (technical-economic indicators of product sophistication), achieving the parameters of technical development tasks, and for accelerating the deadlines of their completion and application. Measures adopted to accelerate R&D progress which have been gradually implemented beginning in 1984 should be more widely utilized;

--innovational activity must be subordinated to demanding world technical-economic parameters, assuring the effective impact of these standards on the performance of economic organizations through foreign and world prices, rigorous evaluation of the technical sophistication and quality of products, price incentives and the use of parametric techniques for setting new product prices.

Through the more intensive incorporation of our economy into socialist economic integration, the opportunity should be created for the joint resolution of R&D tasks through the broader utilization of modern forms of cooperation between organizations of the CEMA member countries.

These strategies and proposals for improving planned management must be reflected in appropriate methodological and legal norms. Great emphasis is being placed on the fact that during the formulation of the principles sight was not lost of the key point that the resultant legal norms be understandable and simple. It is not possible, however, to avoid conflict situations, as long as their resolution results in increased efficiency. We are facing, after all, a time of very demanding, politically committed and professionally challenging work. We are convinced that the further expansion and refinement of the Set of Measures will fully serve to shift the Czechoslovak economy to an intensive path of growth.

9276  
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CAUSES OF FODDER PLAN NONFULFILLMENT DISCUSSED

Prague KONTROLA in Czech No 9, 1984 pp 4-6

[Article by Eng Zdenek Helcl, People's Control Commission of the CSSR: "The Reasons for the Underfulfillment of Targets for Intensive Fodder Crops"]

[Text] A long-range objective of agriculture is to increase the degree of self-sufficiency in basic types of foods. It is an objective that may be attained only by increasing the growth rate of plant production so that the production of fodder crops will keep pace with increases in livestock production, particularly of cattle. For those involved in plant production this is a matter of combining more highly productive strains, effective organization of growing space, modern agricultural machinery, and an appropriate choice of fodder crops so as to make possible an increase in the production of nutrients and dry matter per unit of area. This will in turn facilitate the mixing of nutritionally balanced and platable fodder mixtures. At the same time, bulk fodders must be used more effectively, especially since valuable agricultural land has been allocated for their cultivation.

The foregoing describes roughly all the factors influencing the intensity of fodder production and the efficiency of its utilization to achieve greater useability, in view of the limited possibilities for using the soil stock for fodder production. For many years our agricultural sector has not been able successfully to assure a correspondence between the needs of livestock production and the output of plant crops, with shortfalls being compensated for with fodder imports, especially grain.

This has happened not because our agricultural experts have forgotten about the experience of previous generations or because they were not aware of the requirements for the optimal feeding of livestock, etc. The unfavorable developments were the result rather of a number of changes that have occurred in the techniques for fodder production and feeding as a result of the implementation of mass production machinery necessitated by declines in the agricultural work force. A secondary but also important cause has been the external economic relations related to the importing of agricultural products, which today are set up in a fashion diametrically opposed to that of, say, 20 years ago.

The only way to maintain per capita meat consumption was to increase the utilization of domestic potential for intensifying the production and utilization of bulk fodders.

For this reason, and in accordance with the resolutions of the 13th CPCZ Central Committee Plenum from 1979, the CSSR Government Presidium passed resolution No 276/1980, which decreed a change in the structure of fodder crop cultivation so that nutrient production per unit of land could be increased. Moreover, the Fourth CPCZ Central Committee Plenum in October of 1981 emphasized the need for a significant improvement in the structure of the entire fodder base, above all to compensate for limited possibilities for the importing of concentrated fodder:

The CSSR Government Presidium, however, did not specify only objectives for the assurance of the fodder base, but also objectives related to the useability of the cattle fed with bulk fodders (apart from the effect from concentrated fodder). Nor did it overlook objectives related to assuring the conditions for a gradual intensification of bulk fodder production, such as the procurement of seed or the development of harvesting and storage techniques for fodder root crops.

In an effort to determine just how these objectives were being fulfilled and what other potential existed in the production of fodder crops, the system of people's control agencies conducted an inspection in 72 okreses in all krajs of the CSSR in 1983. In addition, the CSSR People's Control Commission processed and evaluated data from about 2,000 agricultural enterprises from the CSSR for the 1980-1982 period.

#### Cooperation With the People's Control Commission System

The inspection provided for an effective division of labor among the individual organizations so that each organization inspected those areas over which it had authority to resolve any problems that might be found. For instance, the people's control commissions of national committees were assigned to inspect compliance with proper agricultural procedures, including the selection of land parcels, the timely and professional conduct of technical operations during the period of vegetation and harvest, and economic incentive systems. These factors all influence the intensity of fodder crop production, as measured by yields, and the inspection turned up a lot of areas for improvement. Senior managers in agricultural enterprises and right up to the ministry level then took measures designed to exploit certain of these areas of potential.

The CSSR People's Control Commission, in conjunction with the CSR and SSR People's Control Commissions, on the other hand, devoted their attention during the inspection to shortcomings in assuring the conditions for implementing a restructuring of the fodder base, the reasons and therefore the solutions for which lay in the management sphere.

This article is intended not only to present the results of the inspection but also to point to specific solutions to the problems that were uncovered. It will also touch on other findings that have an impact above and beyond the object of the inspection, and which are therefore that much more serious.

#### Structure of Fodder Crops Grown on Arable Land

Not every crop is equally appropriate for raising in various soil and climatic conditions and not every one produces the same yield in terms of the amount and

type of nutrients. The questions of what to grow, where, and in what amounts are therefore critical to the ability to mix balanced fodder rations.

For this reason, in 1980 the CSSR Government Presidium established in the above-mentioned resolution specific objectives for expanding the area sown in clover crops and fodder root crops at the expense of the less intensive annual fodder crops, above all spring mixtures.

This objective was supposed to have been carried out within agricultural enterprises by agricultural administrations. The Federal Ministry of Agriculture and Food projected in its supporting documentation for these measures that by 1985 it would be possible to have made significant progress. Finally, the restructuring had been included both in the budgeted spaces which formed the basis for the Seventh 5-Year Plan and in the annual implementation plans.

In fact, however, 1981 and 1982 saw a regressive development of both sown and harvested areas. In 1982 the harvested area of perennial fodder crops in the CSSR had been reduced by 97,000 hectares in comparison with 1980. Fodder root crop area had declined by 3,100 hectares, while the area in annual fodder crops had increased by 73,600 hectares, or almost 10 percent.

A comparison of the foregoing figures with the target figures, assuming equal fulfillment of the overall target in each year through 1985, indicates that in 1982 there was a shortfall of 24,300 hectares of fodder root crops and 159,300 hectares of perennial fodder crops. Using the same assumptions, the area in annual fodder crops (primarily of the very inefficient spring mixtures) had increased by 199,100 hectares, in violation of the plan.

Because of the differing nutrient content of specific fodder crops, the larger percentage of total output taken up by less intensive crops meant that fewer nutrients were produced than would have been the case if we had held to our schedule for a gradual restructuring. In terms of 1982 yields this amount would have made possible an increase of about 80,000 tons of slaughter cattle weight, while making it possible to use 15,500 hectares of arable land for other crops.

This unfavorable trend stopped in 1983. The increased planting of perennial fodder crops, fodder root crops and the reduced levels of annual fodders, however, amounted to little more than a return to the starting point of 1980. This was all that was possible, however, meaning that after 3 years the only thing that can be said is that nothing has been accomplished to improve the structure of fodder crops in the CSSR.

This embarrassing outcome of a review of target fulfillment related to the intensification of bulk fodder production has some reasons. The critical ones turned out to be underfulfillment of targets for the assurance of material conditions, specifically in shortages of alfalfa and fodder beet seed and poor harvesting equipment for fodder beets.

#### Assurance of Material and Technical Conditions

a) Seed reproduction operations have not been specialized to the requisite extent, and small-scale production techniques predominate, meaning that there

is little interest on the part of the reproduction companies to produce seeds. They are oriented more toward market crops, so they do not pay enough attention to seed-growing techniques, resist the signing of contracts with the Oseva and Slovosivo economic production units [VHJ], and frequently fail to honor existing contracts. The low intensity and overall volume of seed production under appropriate soil and climatic conditions lead to a disruption of established compartmentalization, as well as to the uncontrolled circulation of seeds without thoroughly removing weed seeds from the supplies.

The Oseva and Slovosivo VHJ's, which are supposed to guarantee seed production, are for the most part dependent on supplier-consumer relations with individual reproducers for the fulfillment of their targets. The ministries of agriculture and food of the two republics have not developed the material or the personnel conditions within these two VHJ's so that they can be fully responsible for seed production.

b) The CSSR Government Presidium, in the resolutions mentioned earlier in this article, directed the CSSR Ministry of Agriculture and Food, in conjunction with the ministries of agriculture and food of the republics, the State Commission for Research, Development and Capital Investment (the former FMTIR), and the Federal Ministry of General Engineering, to design by 1984 mass production techniques for the harvesting and storage of fodder root crops with minimal losses, so that the eventual area sown in fodder root crops will reach 150-160,000 hectares, as the necessary equipment becomes available to agricultural enterprises.

However, the Federal Ministry of Agriculture and Food provided this harvesting equipment, which was the limiting factor in fodder beet production, incompletely and sloppily, solely through deliveries of a domestically designed two-row harvester, the development and production of which was never successfully turned over to the general engineering sector. Following unsuccessful negotiations, the Ministry of Agriculture and Food assumed responsibility in 1980 for the development and production of this harvester by setting up specialized divisions at the Machine and Tractor Station and Agricultural Equipment Repair Center VHJ. A domestic two-row harvester was thus developed in the research institutes of the agriculture and food sector which, however, did not have the resources to perform this work either rapidly or successfully.

The result of this approach was that during the operational testing of the harvest of 1982 the harvester proved defective; the State Testing Center for Agricultural, Food Industry and Forestry Equipment found several serious shortcomings in the machine, in addition to poor stability, which necessitated fundamental changes in the design. The State Tractor Station and Agricultural Equipment Repair Center VHJ therefore stopped their developmental work in 1983.

Another fundamental mistake was that the ministries of agriculture and food of the republics did not find out in time whether it might be possible to use other equipment, such as modified domestic three-row harvesters as a temporary solution, nor did they investigate the possibility of importing a six-row harvester from capitalist countries to harvest sugar beets, etc.

Taken together, the findings indicated that the seriousness of the tasks required sophisticated and efficient managerial work at all levels right from the start of work to meet the targets.

To delve more deeply into these reasons one must identify and separate two spheres, the first of which concerns managerial work and the breakdown and transmission of objectives to their place of fulfillment, and a second which precedes it and consists of the development of a design or concept from which targets are derived.

a) In the area of direct management it has been shown that the ministries of agriculture and food of the republics as well as the agricultural administrations break down objectives which stem from approved designs without thoroughly matching up the structures of plant and livestock production. Subjective influences assume larger proportions at individual levels of management, and the result is a situation in which the soil or crop use at specific enterprises may be diametrically opposed.

A consequence of differing sizes of cattle herds on fodder crop lands is different production intensities for fodder crops. Enterprises with low herd densities do not have to devote as much effort to herd nutrition and can be content with low or below average yields. On the other hand, enterprises which have relatively little land on which to grow their fodder crops may not be able to meet their needs even with very high yields.

It was also determined that, as a result of an uncoordinated approach by divisions within the CSR Ministry of Agriculture and Food, objectives have been transmitted not only late but also incorrectly and in conflicting forms. For instance, the target for the production of root fodder crops was set at two different levels in a single guideline. In one point of the guideline for the Cesk Budejovice Kraj Agricultural Administration the target was listed as 2,700 hectares, while in the second point of the same guideline it was listed as 4,000 hectares. The target figures did not agree for a single kraj and the differential was almost double.

A certain formalism in assigning tasks without well-thought-out differentiation that corresponds to differences in the conditions of specific agricultural enterprises has appeared at middle managerial elements. On many occasions targets were only copied, and errors were made in this process. Examples include setting the fulfillment date at a time earlier than the issue date of the guideline, targets for a corn-producing area were given to an area where corn is not grown, and every Central Bohemian okres being given targets of achieving "kraj" self-sufficiency in the production of clover seed, etc.

b) Shortcomings were also found in the work of the Ministry of Agriculture and Food. It is important at this point to mention that the idea of a "concept" is often corrupted by the impression that it is something that brings an immediate result and that this is secondary from an inspection point of view. It is more difficult to understand the fact that a concept, and this term may be replaced with others, is for practical purposes the foundation for the development and formulation of an objective. In practice this means that conceptual material should be processed at the highest level of authority, which has not always been the case.

The investigation also showed that the ministries of agriculture and food are focused more on the processing of new concepts than on the fulfillment of existing ones. In other words, on many occasions there is an overemphasis on conceptual work at the expense of assuring the conditions for the implementation of ongoing projects.

Moreover, design organizations, whether at the level of research institutes or ministries of agriculture and food, frequently do not cooperate, each choosing to push its own pet projects. They frequently do development work based on differing data, often are not aware of each other's work and do not question their results.

#### Implementing the Results of the Inspection

Based on the final report of this inspection, the CSSR People's Control Commission has adopted resolutions which direct the CSSR Ministry of Agriculture and Food to assure tasks directed above all at the development of conditions for the gradual restructuring of the cultivation of fodder crops, i.e., at rectifying the main causes of the shortcomings that were found.

One of the most important of these tasks is to develop, in cooperation with the CSR and SSR ministries of agriculture and food, the conditions at the Oseva and Slovosivo VHJ's during 1984 so that they can assure the production of alfalfa and fodder beet seeds with their own resources, drawing selectively on the soil stock of certain agricultural enterprises. No less important is the assignment of setting up a capability, in conjunction with the State Commission for Research and Development and Capital Investment and the Federal Ministry of General Engineering, for handling as of 1985 research projects in the area of agricultural equipment, and so that the work of the Agricultural Equipment Research Institute (the agricultural sector) and of the Agricultural Machinery Research Institute (machine building sector) are always merged under a single state plan for research and development. The goal of all such projects should be the mass production of whatever piece of machinery is designed.

The Minister of General Engineering also accepted certain tasks, beginning in 1985 with the start-up of production and deliveries of large-scale harvesting equipment for fodder beets.

In addition to these tasks, which involve primarily the development of conditions by supervisory organs and organizations, other measures were adopted related to primary production.

These tasks include the identification of those cultivars of fodder beets that will cut down on large losses when harvested by new equipment, as well as the thorough implementation of economic incentives for the production and quality of bulk fodders. The most important tasks include the completion of centers for the managed feeding of cattle at the okres level and the utilization of their work by agricultural administrations to facilitate the restructuring of the cultivation of bulk fodders. The result is intended to be the achievement of an optimal composition for fodder rations based on the intensive production of fodder crops.

The following conceptual task has been adopted at the federal level and requires an assertive attitude on the part of the republic ministries of agriculture and food.

This task provides that while working on drafts of the Eighth 5-Year Plan, the assurance of a concrete material program with a schedule for the production of bulk fodders must be included, which will facilitate the fulfillment of objectives in increasing the useability of cattle, as directed by CSSR Government Resolution No 276/1980.

The fulfillment of these and other adopted measures will be inspected on an ongoing basis by the CSSR People's Control Commission.

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CZECHOSLOVAKIA

STATE FARM MANAGEMENT SUMMARIZED

Prague HOSPODARSKE NOVINY in Czech No 45, 1984 p 6

[Article by Alexandr Hnizdiuch, secretary of CPCZ North Bohemia Kraj Committee]

[Text] The resolutions of the 16th CPCZ Congress, as updated by the 4th and 11th Plenums of the CPCZ Central Committee, have clearly directed state farms to increase their managerial efficiency and performance to that of united agricultural cooperatives [JZD] operating under comparable conditions. This is an objective that is made to order for us: in North Bohemia Kraj there are currently 23 state farms which manage 53.6 percent of the agricultural land of the kraj and which have an average size of 9,064 hectares. These state farms operate under varying conditions, ranging from excellent (relatively few) to extremely bad in border and basin regions.

The introduction of an improved planned management system for agriculture and of new pricing mechanisms has had an important influence on the state farms of this kraj. In the past 2 years these state farms have generated Kcs 88.3 million in profits in excess of the plan, something which had never happened before. Moreover, the gross agricultural production per hectare of agricultural land in 1983 amounted to Kcs 12,973, while in 1981 it had been Kcs 11,713.

Yields have also increased: grains to 3.7 tons per hectare, perennial fodder crops to 6.9 tons per hectare, rape to 2.4 tons per hectare. Yields have also increased from meadows and pasture lands and for potatoes.

Yields of Major Crops in North Bohemia Kraj (tons per hectare)

	State Farms		JZD's	
	1981	1983	1981	1983
Grains	2.72	3.70	3.50	4.47
Rape	1.74	2.43	2.16	2.65
Sugar beets	29.81	27.14	31.96	33.12
Silage corn	29.15	27.94	33.10	30.68
Perennial Fodder	6.60	6.98	7.32	8.36
Meadows	3.55	3.88	5.08	4.96
Hops	1.12	0.97	1.23	1.13

Useability of Economic Animals in the North Bohemian Kraj

	State farms		JZD's	
	1981	1983	1981	1983
Cattle weight gain--total	0.56	0.59	0.61	0.64
Feed lot cattle--weight gain	0.58	0.62	0.61	0.66
Feed lot swine--weight gain	0.52	0.56	0.55	0.57
Calf mortality (in percent)	5.1	4.1	3.5	3.1
Piglet mortality (in percent)	7.1	5.8	4.2	4.0
Annual per cow milk yield (in liters)	2,673	2,989	3,113	3,451

Positive results were also achieved in livestock production. The annual per cow milk yield increased to 2,989 liters and will exceed 3,000 liters this year. Some gains have been achieved in weight increases for cattle and swine, as well as reductions in the death rate of calves and piglets.

These results have been assured through increased initiatives of the employees of state farms, the improved organization of production and work and to a large extent have been positively influenced as well by the systematic attention devoted to state farms and their management by kraj and okres party bodies and by basic party organizations.

Nevertheless, there exist significant differences between JZD's and state farms, as well as among the state farms. JZD's are currently achieving gross agricultural production per hectare of agricultural land of Kcs 3,735 more than state farms, even though the state farms are achieving greater per employee gross agricultural production (Kcs 13,562). This is because the state farms have 50 percent fewer workers per 100 hectares of agricultural land than the JZD's.

Every comparison clearly has its weak points. This is also the case here because state farms are operating for the most part on lower quality soils and under relatively worse conditions. Nevertheless, it is clear that even though state farms have been gradually increasing their production and have reduced the differences between themselves and the cooperative sector in recent years, they still have a long way to go to catch up to the JZD's. By improving their production figures to a point closer to those of the JZD's they can also make a substantial contribution to the development of North Bohemian agriculture.

Underutilized resources exist mainly in the utilization of the soil stock and the bioenergy potential of the soil. A number of state farms have formulated and are in the process of implementing a plan for the production and use of organic fertilizers, including tree bark, various wastes and surface deposits from the extraction of brown coal for the industrial production of compost.

To a much greater extent than previously state farms must make use of the gene pool of economic animals and the productive capabilities of specific cultivars of agricultural crops. They must more rapidly and effectively introduce khozraschot and brigade forms of management and compensation. These measures

have proven effective at the Duba state farm in Ceska Lipa and at the Zatec state farm. State farms must do a better job of applying the results of research and development work to their cultivation practices for both plant and livestock production.

Finally, the technical-managerial employees must improve their managerial, organizational and mass political work with people. Wherever this has been done, the results have been positive. The Roudnice nad Labem, Duba and other state farms are examples of this.

By making use of all the available potential at the state farms in our kraj it will be possible to increase the intensity of agricultural production and thereby fulfill the objectives of the 11th CPCZ Central Committee Plenum.

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GERMAN DEMOCRATIC REPUBLIC

CONTRIBUTION OF LEUNA CHEMICAL PROCESSING INDUSTRY DETAILED

General History Detailed

Neubrandenburg FREIE ERDE in German 15 Oct 84 p 4

[Text] As large as a city, with an area of 7 square kilometers and a network of roads 115 kilometers long--these are the Leuna Works today. Endless coiled pipes rise like latticework from the plain around Merseburg. Pipe bridges, cooling towers, and distillation columns characterize the impressive panorama of the plant, which occupies the largest unbroken production area of all the enterprises in the GDR.

Its foundations were laid in 1916 in the open country near the small village of Leuna, where there was coal and a cheap labor force. The successful experiment carried out in 1912/13 by the German chemists Haber and Bosch--the synthesis of nitrogen compounds from the air--was to be applied in Leuna on an industrial scale. By using ammonia, it was possible to manufacture explosives. With a view to its chances for success in World War I on the part of German imperialism, a start was made on the building of the ammonia factory. In 1927, after the IG Farben combine had taken over the Leuna Works, gasoline production was initiated. This enterprise helped Hitler to prepare for World War II by way of the synthetic manufacturing of fuel from coal and carbide.

After the end of the fascist war, in which the plant was razed to the ground, there was a successful cooperation between German and Soviet communists. In Leuna in the post-war years, 800,000 cubic meters of rubble had to be removed, and more than 150,000 tons of scrap had to be salvaged. Soviet experts helped in the reconstruction and in the erecting of completely new facilities.

As early as in July 1945, it proved possible to manufacture 136 tons of gasoline. The development of fertilizer production was declared to be the point of main effort in the next few years. Initially the more than 100 products included those which were needed by people on a daily basis, such as baking powder, detergents, and fuel methanol--as a replacement for grain alcohol in cooking. Also the manufacturing of important pharmaceutical products began.

When the GDR was founded in 1949, the war damage had been cleared away for the most part. With Soviet aid, in a relatively short time the Leuna Works developed into one of the largest chemical plants in Europe. In 1966, Leuna II went into operation as the first petrochemical plant complex in the GDR. In addition to coal upgrading, the processing of petroleum on a large scale was added.

These highly productive facilities resulted in a great increase in production and good working conditions for the highly-qualified chemical workers. With Polymir 60, an even more high-performance facility entered into the production of plastics.

At this year's Leipzig Autumn Fair, the exhibits of this chemical combine proved once again how much headway the scientists, engineers, and production workers have made in the direction of intensification.

The international esteem enjoyed by Leuna products--for 3 decades now, Leuna has been viewed by customers in 40 countries as a reliable producer of high-grade chemical products--is due above all to a consistently good quality which the workers guarantee with their conscientious work every day.

More than 400 products are offered, and with the production of these the combine supplies a fraction of 12 percent of the output of chemical products in the GDR. This year its 30,000 workers want to increase the value of their gross production to 11 billion marks.

#### Increased Plastics Processing

Dresden SAECHSISCHER ZEITUNG in German 9 Oct 84 p 2

[Text] Leuna--3 weeks ahead of schedule, researchers, assembly collectives, and production collectives of the Leuna Chemical Combine have completed a rationalization project for the production of 8,000 tons of Miramid annually. With that they have created the basis for making available to the national economy more high-grade structural plastic for machine building and electrical engineering. Moreover, several new types of polyethylene plastics, above all for the cable industry, have been put into production. Like Miramid, they come from the petrochemical division of the combine, the ground-breaking for which took place on 8 October some 25 years ago. The intent was to produce from Soviet oil--which flows directly into the Leuna tanks through the pipeline "Friendship"--above all high-grade plastics and raw materials for chemical-fiber production. Some 24,000 tons of plastic were the production target at the startup of the facilities in 1966.

In connection with the caprolactam facility as well--it furnishes the starting material for Dederon and the plastic Miramid--it has proved possible to almost double production, without an input of more energy. The intensification measures currently being carried out are providing the basis for raising the capacity to 78,000 tons by 1986. That is the contribution of the Leuna workers to the GDR's chemical-fiber program. By the end of the year, the currently prevailing lead in plan fulfillment ought to have been extended further.

GERMAN DEMOCRATIC REPUBLIC

PENTACON TAKEOVER BY ZEISS INDUSTRIAL COMBINE ANNOUNCED

Frankfurt FRANKFURTER ALLGEMEINE ZEITUNG in German 26 Nov 84 p 18

[Text] Berlin, 25 Nov--Wolfgang Biermann, general director of the Carl Zeiss Combine VEB, now the third-largest industrial combine in the GDR, announced during a "showing" of the enterprise in East Berlin that the "Pentacan Dresden" Combine, the largest producer of photographic equipment and cameras in the GDR, will be absorbed into the "Carl Zeiss" Combine as of 1 January 1985. Pentacan Dresden, which looks back on an old tradition of production, includes the Goerlitz precision-optical works and the Freital Camera Factory. For Biermann, this incorporation signifies a continuation of the "process of economic concentration," and above all also the utilization of the scientific-technical possibilities of both combines in the sector of manufacturing photolenses and devices in microfilm technology. Previously, about 48,000 workers were employed in his combine, and after the absorption of Pentacan there will be 58,000 workers in the 22 enterprises of the combine. Biermann made known at the most recent session of the SED Central Committee that his combine also acts as the supplier for "optical conductor communications" (glass fibers).

Following Biermann, at this session of the Central Committee the four best known directors of GDR industrial combines spoke about their objectives: Rudolf Winter, head of the large machine-tool combine "Fritz Hekkert," in Karl-Marx Stadt (Chemnitz), announced that "completely new machines and equipment are being developed and put into production at a fast pace." He said also that labor productivity is rising by leaps and bounds. With the development of new automatic machinery, it has been possible to better take into account the wishes of customers and to shorten delivery times.

The general directors of the Leuna Chemical Combine (Erich Mueller), of the Piesteritz Agricultural Chemistry (Otto Koenig), and of the Schwedt Petrochemical Combine (Werner Frohn) reported on the fulfillment of those directives of the Politburo--which are applicable to all industrial combines--concerning an increased manufacturing of consumer goods for the population, for example detergents. It was repeated several times that these new products were in line with "advanced products at the highest level internationally."

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GERMAN DEMOCRATIC REPUBLIC

MACHINE TOOL ACCESS, INNOVATIVE ENERGY-USE AID MODERNIZATION

Leipzig URANIA in German Vol 60 No 6, Jun 84 pp 37-39

[Article by Prof Dr Otto Reinholt, SED Central Committee Member, Director of the Academy for Social Sciences: "Modernizing, Upgrading, Renovating--Qualitative Renovation of Basic Assets Through Socialist Rationalization"]

[Text] In the socialist competition in honor of the 35th anniversary of our socialist German Democratic Republic, the collectives in the city and countryside are working toward an all-around fulfillment and a selective surpassing of the national economic plan. To this end they are organizing a new round of rationalization measures in order to increase labor productivity and to improve the working and living conditions of the people. Above all through a better utilization of the existing machinery and equipment, through the introduction of modern technologies, through a good economic use of materials--through socialist rationalization--substantial advances are being achieved here. The watchword is:

Modernization, Upgrading, Renovating

When we succeed in utilizing the machinery and equipment in our national economy for only a minute longer daily, this results in a greater production of industrial goods valued at 4.2 million marks. A worthwhile course! We are following this course. As early as in 1984, important production equipment in industry is to be utilized for 16.8 hours per calendar day (in 1983 the figure was 15.6 hours, compared to 15.1 hours for the previous year). This better utilization of our basic assets is achievable through an intensively expanded reproduction and through one of its chief methods: Socialist rationalization in the combines and enterprises. (These basic assets--the economist also calls them capital assets--consist of machinery, equipment, and facilities, and together with current production assets, basic materials, semifinished products, and unfinished products they are needed in their material form for the production process).

Socialist rationalization includes the consistent adjustment of the reproduction of basic assets to qualitative renovation and to the efficient utilization of the material-technical potential. This means that the existing machinery, equipment, and facilities are to be upgraded and renovated--are to be modernized; and that this is to be done not only once,

but in an ongoing process. This constant rationalization follows above all from two arguments:

For one thing, it is too much for the economic capabilities even of the economically most productive countries and undertakings to set up a redesigning with every change in the product structure and in technology, or to engineer a retooling of the existing enterprises or departments. In many branches of the economy, this would then have to be done every 2 to 3 years.

But for another thing, such a course would be unreasonable also because for the most part not all of the existing machines and equipment become obsolete. Often the achieving of a new organization of production is a matter of only the control systems or of a new concatenation of a number of machines. It follows from this that modernization--that is, the comprehensive rationalization of the existing machinery and equipment--is the most effective way to achieve in the shortest time the requisite change in the technical level of production (and this method can also be observed in international practice). Therefore the modernization of the existing material-technical base is one particular way to ensure the economically necessary growth in productivity and in the efficiency of labor and at the same time to reduce the expenditures of assets.

#### What Do We Understand by Modernization?

It is well-known: Some of the measures proper to a good economic use of basic assets in the process of intensifying production are a more efficient utilization of the existing capital goods (those means of production with a service life of over 1 year and a gross value from 1,000 marks up), a systematic maintenance scheme, the timely scrapping of worn-out capital goods--and a purposive modernization. A good labor productivity and at the same time the further improvement of the working and living conditions of the workers are achieved when--as is under way at present in the combines and enterprises--entire phases of production are modernized. This is a task which, among other things, was one of the central points of the Seminary Conference in Leipzig of the SED Central Committee with the general directors of the combines in March 1984. At this, Guenter Mittag, member of the Politburo and secretary of the SED Central Committee, referred to the efficient combination of modernization, general overhaul work, and the use of microelectronics and robotics. By proceeding in such a way, the most recent scientific-technical findings can be made useful in the quickest way and a high productivity can be achieved.

Make more from what is already on hand--if we apply this principle of intensification to the modernization of basic assets, this means: Raising the technical level through retooling and replacement and prolonging the service life of the basic assets. The modernization of existing machinery and equipment makes it possible, as initial results in the metalworking industry show, to have considerable savings over capital expenditures (30-60 percent), savings of rolled steel and gray cast iron (up to 80 percent compared to machinery and equipment which are produced anew), a raising of the productivity of individual machines by an average of 30 percent, and a

prolongation of the time in operation by 4-6 years compared to the standard service life. Moreover the separate modernization measures permit an ensured high quality for the current production or for the new products which are to be introduced, and allow an increase in the continuity of the production.

The high regard which the modernization of existing basic assets is now receiving follows in particular from the high scientific-technical level which has been reached for the basic assets, which are more amenable to scientific-technical innovation processes than in the past (in the GDR, 30 percent of the basic assets in use are not more than 5 years old, and some 55 percent are not older than 10 years), from its effects on the generally asset-saving type of intensively expanded reproduction, and from the necessity to counter physical wear and tear. Moreover, an accelerating effect is still being exerted on the modernization process also by such factors as the deterioration in the efficiency of basic assets, and also the restricting of capital-expenditure possibilities and replacements for imports.

Initial results in connection with the modernization of existing basic assets are on hand from the various sectors of our national economy. Now what is important is to achieve modernization in all sectors of the economy. To that end, a number of prerequisites still need to be provided--among the manufacturers and among the users of machinery and equipment. Thus, for example, in the GDR there is a comprehensive program for modernizing the existing machine tools. Wherever machine tools are used, the extent of maintenance is to be developed substantially more rapidly (the 18 billion marks of maintenance capital amounts to 40 percent of the volume of capital expenditures); the downward movement of general overhauling in the national economy is to be arrested and reversed; the achievements in the in-house construction of means of rationalization are to be strengthened (in the coming years, 25 percent of the capital expenditures for equipment are to be made up by way of the construction of the means of rationalization by the combines--on this there will be more details in one of the upcoming issues); the in-house designing and planning capacities are to be built up or expanded.

Scientific-technical and economic solutions toward modernization are to be offered by the manufacturers of machine tools. To that end, corresponding anticipatory work in the development, planning, and realization of solutions according to types is to be ensured, and a portion of the capacities (about 25 - 30 percent) to be restructured for modernization solutions.

Furthermore, important ancillary supplies for the modernization of existing equipment are to be ensured and the exporting of modernization solutions is to be planned and realized as an important aspect of further upgrading.

The opportunities which arise from the international socialist division of labor are to be utilized to a substantially greater degree.

In the last analysis, the efficiency of modernization solutions is also determined by how much it succeeds in keying management, planning, balancing, and economic stimulation to this process.

#### Modernization--the Most Efficient Way

The modernization of the existing basic assets--for our national economy, this method of socialist rationalization is very efficient and at the same time improves the working and living conditions for the individual. Numerous examples which are at hand by now demonstrate this:

- Modernizations of seven paper machines in the Pulp/Paper Combine (as of 1982) through the installation of modern process guidance systems with microelectronic control units have resulted in:

A rise in production of between 3 and 10 percent; a savings in raw materials and energy of 2-5 percent; and an increase in quality of between 30 and 50 percent.

- In the Teltow Equipment and Controller Works VEB a higher stage in the technical level of production was reached through the in-house construction of a fabrication cell (the coupling of two lathes and the modifying of an older lathe). Financial expenditure: 90,000 marks. In comparison to this, the acquisition of a new lathe alone would have required financial resources amounting to 500,000 marks, and in doing this a substantially higher technological level would not have been achieved.

- In the Erfurt Metal Forming Combine, it was determined that of some 18,500 power presses existing in the GDR, half can be earmarked for modernization. The realization of this process gives on the average an increase in productivity of 300-500 percent and a savings in energy of about 50 percent. As a whole the possibility exists of freeing 5,000 workers for other jobs and of making savings in capital expenditures of between 30 and 70 percent.

Exemplary things have also been achieved already in other industrial branches:

- In light industry, the modernization of existing spinning machines through addition of productivity-raising ancillary equipment,

- in the foodstuffs industry, the modernization of sugar factories by the installation of microelectronic control systems in certain fabrication steps,

- in the coal industry, through the use of laser control devices,

- in metallurgy, the modernization of rolling mills by the installation of a new electrohydraulic roller setting with a thyristor control unit.

### Good Economical Use of Materials--How Does Rationalization Help Here?

A part of the basic intent of socialist rationalization is also to achieve a good economical use of materials, with this including the efficient use of energy and upgrading (which means products of a high quality and a high replacement value).

The significance of an economical use of materials results from the necessity of and the opportunities for achieving a growth in production on the basis of a drop in absolute terms in the use of energy and materials.

In the determination of the development goals for an economical use of materials, by all means consideration must be given to the increases in expenditures entailed by the physical providing of the sources of energy and of raw materials and industrial materials. These expenditures have differing causes--from price increases for imported raw materials within the last decade, up to the deterioration of the geological conditions for mining brown coal. The enormously increased expenditure for these brings the entire reproduction process in the national economy into a new situation: With a reproduction simply carried out in terms of value, a supplying of the national economy with raw materials and fuels on the same scale no longer can be guaranteed. In order to be able to reproduce in the simple fashion the total social product (= the overall result of the work expended in the sphere of the society's material production during a certain period, in the form of means of production, means of consumption, productive services), the physical material consumption must be decreased to the same degree that the procurement expenditure for raw materials and fuels increases. Otherwise the situation would lead to our resorting to non-planned portions of the national income or to prepayments from the foreign-trade sector for ensuring the simple type of reproduction. It matters a very great deal when through rationalization it proves possible to consistently practice an economical use of materials extending even as far as an absolute savings, especially in connection with those sources of energy, raw materials, and industrial materials which are representative of a high value.

An important method for the economical use of materials in the 1980's is further upgrading. This is one of the inexhaustible sources of an economical use of materials, sources which are directly connected with scientific-technical progress. Therefore it is important for socialist rationalization to concentrate above all on those upgrading solutions which lead both to a considerable increase in performance value and also to significant decreases in materials per product. One working tool for the combines is upgrading concepts, which contain precise rules about savings in energy, raw materials and other materials, about the observance of proportional factors for lowering the specific energy and material consumption. The sum of the measures in these concepts is a basis for the increase in output earmarked in the national economic plans.

Meanwhile, the lowering of the consumption of production has become one of the most important sources of growth of the national income. In 1980 only

6 percent of its growth resulted from the lowering of production consumption, whereas today the figure is about 50 percent.

The greatest effects in the direction of an economical use of materials are achieved with the development and use of new, efficient principles and processes of technical operation, in association with a turn to new generations of products.

An example of this is the optical conductor cable. Compared to the copper cable, given the same transmission performance it has a smaller mass per unit length (about 90 percent smaller), and this allows one to save about 1,000 grams of copper with 1 gram of glass.

In the process of further upgrading, the comprehensive utilization of domestic fuels also occupies one of the foremost places. Here it is a question of a reduction in raw-material imports, and at the same time the structure of the product line and of the industrial branches can be improved so as to correspond better to the nation's raw-material conditions and also measure up to high international standards. Therefore it is not enough only to search for alternative solutions in place of imported materials; such considerations must also lead at the same time to practical steps toward a qualitatively higher level in production.

A basic objective of our economic strategy lies not only in achieving just once a lowering of expenditure for material and energy. To achieve economic growth together with a decreasing consumption of production is a fundamental and long-range problem. To solve it is a specific objective of rationalization.

An efficient economical use of energy and materials on a long-term basis is above all possible only if it is ensured that the newest effective technologies for saving on material and energy are applied each time. There is socially responsible and economically purposive action in those combines where upon the introduction of a new technology the next technology is already being prepared on the drawing board.

Since in the 1980's scientific-technical progress is further accelerating, in many sectors a constant renovation and modernization process is necessary in order to achieve a requisite lowering of the consumption of production. But that is possible only by way of rationalization on a new scale.

Examples of Economical Use of Materials in the National Economy of the GDR

Average annual or annual growth (in percent)

<u>Growth</u>	<u>1971-75</u>	<u>1976-80</u>	<u>1981</u>	<u>1982</u>
of the national economy's output of basic materials	3.1	2.2	0.6	-4.4
of the output of industrial basic materials	4.9	2.3	0.6	-4.2
of the output of industrial basic materials per person working in the producing sectors (not including apprentices)	4.8	1.9	0.0	-4.7

Basic materials are understood to include electrical and heat energy and fuels, and also products of the chemical industry, metallurgy, and the construction materials industry. The national economy's basic material output arises from the sum of the raw materials produced in the national economy, inclusive of secondary raw materials and imported raw and industrial materials. In its calculation, more than 500 product items are taken into account, which represent more than 95 percent of the total raw-material output of the national economy. The output of industrial basic materials is formed from the basic-material output of the national economy minus the output of basic agricultural materials.

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BERLIN WATER QUALITY MONITORED BY COMPUTER, YOUTH COLLECTIVE

East Berlin BERLINER ZEITUNG in German 13-14 Oct 84 p 3

[Article by Dr Michael Ochel: "Microcomputers to Test Berlin Waters: Youth Researcher Collective Installs Up-to-Date Equipment"]

[Text] The continuous monitoring of the water quality of Berlin's numerous lakes and rivers is now to be perfected through the use of computer technology. A collective of young researchers under the guidance of the Main River Office Berlin has been involved with this question since the beginning of last year on instructions of the minister for environmental protection and water management.

The control of water quality, explains engineer Frank Komoss, head of the collective, takes place at especially important points of the city by means of measuring stations that work automatically day and night (the costs per station amount to hundreds of thousands of marks!). At present, to be sure, the data collected here must still be gathered by a "messenger" and brought to the Main River Office for analysis. The result of the current work is to be that the constantly changing "calling cards" of the waters are continually available and can be analyzed immediately.

Accidents More Quickly Recognizable

The result is the advantage of a more accurate check on the condition of the waters, a control that is possible at practically any time. In special cases of accidents, it would, in addition, be possible to take countermeasures more rapidly than before. But scientific installations will also profit from the expected more extensive information.

The highly complicated equipment is now being developed by young researchers. This involves the development of automatic data transmission by radio from the individual measuring stations to the central office as well as the installation and startup of microcomputers that can immediately "digest" and process the expected stream of data.

In view of the scope of such a task, there is nothing surprising about the abundance of cooperative partners involved: in addition to the Main River Office, there is the Water Technology Combine (responsible for measuring

instruments and radio equipment), the television plant at Stassfurt (development of a suitable color picture tube for the monitors), and the Institute for Water Management, which is helping in the development of appropriate computer programs (software). The undertaking is interesting and characteristic for up-to-date microcomputer technology in that the most important software contributions come from an institution that has scarcely any professional relations to rivers and lakes, namely from the College for Economics in Berlin-Karlshorst.

#### Software Has Multiple Applications

From Dr Kuno Schmidt, the director of its organizational and computer center, we learn that this college with research in the area of the social sciences can indeed assist more and more interested parties in practical operations with its computer programs. That is related to the fact that the software produced by the College for Economics mainly for solving certain problems in economic statistics can work independently of its specific content. The same programs that are now being adapted to the Main River Office Berlin, for example, have already served well in calculating the college's coal-consumption standards or have served many lecturers in preparing their instruction.

Even though it does not matter to the computer whether it calculates with an "x" or a "y" or with such quantities as "water temperature" and "turbidity," a certain adaptation of the program to each practical application is necessary. This, in turn, is what Sebastian Flucke and two other students of the college attend to with great enthusiasm and to the utmost satisfaction of the Main River Office.

They do, in fact, characterize their work with microcomputer technology as their hobby. It is fun, because here one can learn how the data are processed in the small computers. One must have command of all the stages of the computing process, know the machine and be able to deal with it. This enthusiasm is probably understandable to someone who is familiar with operations in a large computer center, where one delivers his program to a sort of reception and later (with or without results) picks it up again and pays--but where one, in any case, has little to do with the actual computing process.

#### Useful Contact With the Computer

Direct contact with computer technology, however, is very important for students who one day are to command and further develop data processing in the economy, especially since the small computer, whether it be in the form of office or microcomputers, personal or home computers, will become increasingly popular. For this reason, the development of microcomputers will also be strongly pushed in Karlshorst for training purposes. But the kind of practical training that the three students are receiving at the Main River Office is still the best training, thinks director Schmidt.

Meanwhile, the first telemetry connections to some measuring stations are in operation there. The microcomputers with their keyboards, viewing screens and memory units are generally open and show more of their internal workings than their functional efficiency. Programming is in full swing. Then, at the end of next year, the microcomputers--more exacting and more precise than has heretofore been possible--are to help judge the quality of Berlin waters.

LIGNITE BRIQUETTES DEVELOPED AS ALTERNATIVE ENERGY SOURCE

East Berlin PRESSE-INFORMATIONEN in German No 77, 5 Jul 84 p 4

/Article by Lothar Schulz, department chief, Ministry for Coal and Energy:  
"What Is Lignite Fuel Dust and For What Is It Used?"/

/Text/ Lignite fuel dust is a highly valuable energy carrier. It can be used as fuel almost universally for diverse areas of application. This refinery product of raw lignite is produced in briquette factories in the course of the drying process.

As in the case of refined products such as gas, briquettes, and high-temperature lignite coke, lignite fuel dust also makes it possible to utilize domestic lignite more effectively. Its calorific value ranges from 19 to 22 kilojoules per kilogram and is thus approximately 2½ times higher than that of raw lignite. The fine granulation of between 0 and 0.2 mm gives it flowing properties, which makes it possible to transport it in the utilizer installations pneumatically through pipelines. Fuel dust is cost-effective compared with other energy carriers.

Today, lignite fuel dust is, among other applications, used for the production of heat, for technical drying procedures, and for high-temperature technological processes such as, for instance, cement production. Particularly effective economically is the use of lignite fuel dust in short rotary driers which produce cement in conjunction with the drying process. In the meantime, steam-producing installations in a number of heat-producing plants have been converted to coal-dust firing.

The production of lignite fuel dust has increased rapidly through intensification and expansion of existing production facilities as well as of new ones. In the collectives in the Bitterfeld and Senftenberg brown-coal combines and in the Schwarze Pumpe gas combine it has thus been possible in 1983 to increase production by 80 percent as compared to 1980. Whereas at that time nine briquette factories had dust conveyance installations, another seven efficient installations will be in operation by 1985. This will make it possible to increase production by more than 2½ times compared to 1980.

## Industrial Use of Briquettes

East Berlin NEUES DEUTSCHLAND in German 23 Oct 84 p 8

/Article by Reinhardt Bauerschmidt, regional correspondent: "Brown-coal Dust--Converted to Heat in an Effective and Efficient Manner"/

### /Text/ Novel Procedure in the Groebzig Spinning-Jet Factory

Deputies of people's representative bodies, energy experts, heating and furnace construction specialists from industrial and building management enterprises have of late been found to be increasingly present in the state-owned Groebzig spinning jet factory. The reason for this is that innovators of the enterprise have, with the support of experts from the energy combines in Halle and Erfurt, developed and built a prefiring arrangement for the linked-boiler installation of their boiler house, which makes it possible to burn raw lignite exclusively.

"This results in considerable energy economy," we were assured by to Schmidt, the technical director of the plant. "We had the choice of building a new boiler house at a cost of approximately 2 million marks, or of adapting the existing installation for briquette burning to the change conditions. We decided in favor of the second option. Although this was complicated matter for the employees of our enterprise, it was economically more advantageous than a new building would have been. We are utilizing the existing buildings. We have at relatively low cost developed a technology for stoking and firing the furnace. Thus, the innovators have introduced screw conveyors for continuous transportation of the coal from the bunker to the furnace. An especially constructed under-grate blower is functioning smoothly. All this enables us not only to heat in a stable manner, but also to raise the effectiveness of the boiler installation from formerly 30 percent with the use of briquettes to the currently achieved 80 percent level."

At the present time, the rationalization means constructors of the enterprise are in the process of building a crushing facility. With its help, coarse-grained raw brown coal is reduced to dust for use in the furnace.

The Groebzig plant has been designated a Bezirk /district/ consultation point.

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GERMAN DEMOCRATIC REPUBLIC

PRIMARY ROLE OF LIGNITE COMPARED TO LIMITED GAS, OIL RESERVES

Leipzig LEIPZIGER VOLKSZEITUNG in German 20/21 Oct 84 p 10

Article by Dr Gert Ruettger, Freiberg Mining Academy: "Of Coal, Gas, and Oil: Facts Worth Knowing About Our Domestic Fossil Fuels" /

Text Up to now, our energy requirements have increased steadily along with our standard of living. They have increased to such an extent that the reproductible energy carriers such as wood, wind, water, and sun energy can cover only a small part of them and man must take recourse to the utilization of fossils energy carriers.

At the present time a daily amount of approximately 9.6 Petajoules (9.6 quadrillon Joules) are being consumed in the form of primary energy in the German Democratic Republic. This amount of energy corresponds to a raw lignite equivalent of approximately 1 million tons. The current raw lignite yield of approximately 280 million tons is consequently not sufficient by itself. At the same time, the GDR occupies first place in world lignite production.

The main mining areas are in the Niederlausitz and central Germany areas. Raw lignite mining today takes place exclusively in productive open-pit mines which achieve yields of up to 25 million tons of raw lignite per year. For each ton of raw lignite it is necessary to move more than 4 cubic meters of rubble and to lift approximately 6 cubic meters of water. The mining yield consists primarily of boiler coal, briquetting coal, coking coal, high-bituminous lignite coal, extraction coal, and gasification coal. The areas of these coal types' utilization may be deduced from their specific descriptions.

The share of raw lignite in the primary energy yield is about 70 percent and is in the future expected to rise above that. A prerequisite for this is the further increase in the mining volume to more than 300 million tons by 1990 and an ensured maintenance of this yield level over a long period of time. This involves the mastering of a number of problems, for in the sphere of mining it is always the most favorably exploitable reserves which are used first.

The mining conditions will therefore continue to get worse by conditions such as, for instance, an increase in the average depth. This also results in an increase in the masses of rubble to be moved and in the quantities of water to be lifted. These are factors which substantially determine the expenditures for raw lignite mining and thus the profitability of the latter. In addition to these unfavorable natural conditions there at the same time takes place a shifting of the mining work to areas which have already been opened up industrially, otherwise with the result that also traffic routes, rivers, and even housing settlements must be shifted.

However, the only basis for lignite mining are the economically exploitable deposits. Under the currently existing technical conditions, approximately one-half of the known geological deposits may be considered to be economically useful.

More than 40 percent of the mined raw lignite is used for the production of electrical energy. Approximately the same share serves for the generation of heat in all spheres of industry, commerce, agriculture, and our population.

By way of comparison, industrial materials-related utilization takes place to only a small extent: only somewhat more than 1 percent of the annual mining yield is being processed in the chemical industry. Thus, approximately one-third of the carbon needed in this industrial branch is based on the domestic raw lignite. This share must continue to be increased in the upcoming years.

Beyond this, there is the need to carbonize and gasify more lignite than has hitherto been the case. This requires that in the coming years appropriate scientific and procedural-technical prerequisites will be created. Some thought is also being given to economically feasible lignite liquefaction.

One is frequently also asked the question of whether the mining of raw lignite makes sense and is appropriate from the point of view of energy economy in view of the worsening conditions. Investigations have shown that the energy consumption required for making raw lignite available averages barely 2 percent of the total volume of energy latent in it.

The second important pillar of our domestic primary energy production is natural gas production. With more than 8 billion cubic meters, its volume substantially exceeds the natural gas imports from the USSR. To be sure, the energy content of our domestic natural gas is considerably lower. Although our natural gas resources are smaller when measured the large USSR reserves or those in the North Sea, they are adequate for the further development of our natural gas production in the coming years. However, the GDR's own natural gas deposits are for geological reasons extremely small in quantity. Nonetheless, even the smallest deposits are utilized and tapped in order to make use of all our energy resources.

EFFECTIVE USE OF FERTILIZERS INCREASES SOIL PRODUCTIVITY

West Berlin FELDWIRTSCHAFT in German Vol 25, No 10, Oct 84 pp 433-437

/Article by K.-H. Braun, Ministry for Agriculture, Forestry and Foodstuffs/

/Text/ On the occasion of the socialist competition in honor of the 35th anniversary of the foundation of the GDR, the cooperative farmers and workers of the agricultural producer cooperatives, the state farms, and the horticultural producer cooperatives have jointly with their cooperative partners engaged in manifold efforts for bringing about a widely effective application of the qualitative factors pertaining to the intensification of plant production for increased yields and effectiveness by means of purposeful application of plot-related maximum-yield concepts. An important component part of this process has been and still is the effective use of the available plant nutrients for achieving a systematic increase in soil fertility and increased yields with decreasing specific production-related expenditures.

The good competitive results achieved by numerous collectives with respect to productivity and effectiveness through application of qualitatively new measures for deepening the intensification of plant production among other things also produced many useful findings and experiences for a more effective shaping of developments in the spheres of fertilizing and soil fertility. Their comprehensive utilization by the agricultural producer cooperatives, the state farms, and the horticultural producer cooperatives, and their agrochemical center is of great importance in connection with the further implementation of the economic strategy for our agriculture as decreed by the Tenth SED Party Congress.

The comprehensive discussions and the efforts to develop exacting plan targets and intensification measures for 1985 in the agricultural producer cooperatives, the state farms, the horticultural producer cooperatives, and the agrochemical centers are therefore aimed at opening up even more extensively the reserves for a further performance and effectiveness increase by means of an even more improved utilization of the existing natural and economic production conditions and industry-owned nutrient resources, as well as by means of the most effective utilization of the available mineral fertilizer resources.

In this connection the following courses of action and content-related focal points are in the foreground:

#### Deepening of Cooperative Relations

A maximum opening up and utilization of plant nutrients as well as an effective shaping of fertilization is linked with several elements of the uniform, systematically organized reproduction work process of plant and animal production, especially along with locally-adapted cultivation and crop-rotation shaping, with the extent and the quality of the material interrelations between plant and animal production, and with a division-of-labor type execution of the fertilization work by the agricultural producer cooperatives, the state farms, the horticultural producer cooperatives, and their agrochemical centers. An increase in the effectiveness of the fertilization work therefore requires an objective deepening of the cooperation between plant and animal production and between the plant production of the agricultural producer cooperatives and the state farms and their agrochemical centers in accordance with the requirements of a continually more effective shaping of the uniform production process.

One basic concern in connection with a steady improvement of the cooperation between plant and animal production consists in jointly developing in each instance of cooperation the shaping of cultivation and crop rotation, especially the fodder-cultivation structure and the interim-crop utilization, as well as the use of the available straw, and stable manure and liquid manure utilization in such a manner that both partners will be responsible for taking into account the steady improvement of soil fertility. In this connection it is an important joint task to utilize the available quantities of litter straw for obtaining as much stable manure as possible from it, in cases where no litter is used to ensure a high dry-substance content of the liquid manure to hold at as low as possible a level the losses of organic substance and nutrients when storing stable dung, liquid manure, and dung water at the stable or in the field, and to ensure utilization of organic manure which is effective and involves little loss.

In this connection many cooperatives are finding it useful to enter into contractual agreements and goods/money arrangements for stimulating production and quality parameters in their stable manure and liquid manure management as well as to include stable manure and liquid manure production in their enterprise and brigade plans, in their stable-related maximum performance concepts, and in the socialist competition of the animal production cooperatives.

The socially and economically based need for a continually more comprehensive opening up of industry-owned nutrient sources calls for paying increasing attention to these elements of the uniform reproduction process in the guidance, planning, and control activities of the cooperative councils and the daily cooperative cooperation between the work collectives active in plant and animal production in the villages.

A similarly important factor influencing the effectiveness of fertilization is the level of cooperative cooperation of the plant production of the agricultural producer cooperatives and the state farms with their agrochemical centers.

Many advanced agrochemical center interplant facilities, such as those in Luckau, Altenburg, Laussig, Wriezen, Goldbeck, Kroepelin, Manschnow, and others, are proving by their performance and their development in recent years that the agrochemical centers in adhering to their interplant facility character and consistently directing their advantageous qualities and work specialization potentials of their agricultural producer cooperatives and state farms are an effective growth factor for increasing soil fertility and the carrying through of fund-saving intensification of plant production.

Characteristic for such a progressive manner of working of an increasing number of agrochemical centers is the fact that, beyond their traditional functions, such as shipments, storage, and provision of mineral fertilizers, they are to an increasing extent also performing functions for

-transporting and making available organic fertilizer from animal production,

-for the production of organic fertilizers from byproducts and natural organic matter,

-for improvements in the spheres of stable, yard, and field hygiene,

-for the solution of other focal points connected with the work of plant production.

This finds expression in the fact that, with a steadily increasing trend in this direction, 57 percent of all agrochemical centers are on behalf of their agricultural producer cooperatives and state farms in variable degrees contributing to an effective provision of stable manure and liquid manure within the agrotechnical deadlines, and that up to now 38 percent of all agrochemical centers have formed sections or brigades for the production of organic fertilizers which already have a significant share in the thus far attained volume of field compost production.

In this way the agrochemical centers are able to render a steadily increasing contribution to the raising of the soil fertility of their agricultural producer cooperatives and state farms. The results and experiences of the successful agrochemical centers convey to us the fact that the essential aspect of the work of agrochemical collectives is the reliable output of mineral fertilizers, plant protection agents, and stem stabilizers with a high effectiveness and quality level in the agrotechnically most favorable time periods and in close cooperation with the fertilization and plant protection agronomists of the agricultural producer cooperatives and state farms.

Table 1. Division-of-labor breakdown of the development of achievements attained in the area of nitrogen fertilization

(1) Jahr	(2) Insges.	(3) darunter		(5) Boden-technik	(6) LPG/VEG	(7) Agrar-flug		
		(4) ACZ	Boden-technik					
(8) Tha	Tha	%	Tha	%	Tha	%	Tha	%
1976	7 868,4	4 807,9	61,1	1 236,4	15,7	1 824,1	23,2	
1978	8 146,0	4 350,2	53,4	1 548,0	19,0	2 247,8	27,6	
1980	9 579,3	5 371,0	56,1	1 814,7	19,0	2 389,6	24,9	
1981	9 452,0	5 334,6	56,4	1 633,7	17,3	2 483,7	26,3	
1982	9 241,8	5 134,5	55,6	1 540,4	16,7	2 566,4	27,7	
1983	8 845,6	4 507,2	51,0	1 477,5	16,7	2 860,8	32,3	

Key:

1. Year
2. Total
3. Including technical ground equipment
4. Agro-chemical centers
5. Technical ground equipment
6. Agricultural producer cooperatives and state farms
7. Agricultural aviation
8. Tha = /thousand hectares?/

Table 2. Division-of-labor breakdown of the development of achievements attained in the area of plant protection

(1) Jahr	(2) Insges.	(3) darunter		(4) ACZ	(5) Boden-technik	(6) LPG/VEG	(7) Agrar-flug
		(8) Tha	Tha	%	Tha	%	Tha
1976	6 759,1	4 186,5	62,0	902,1	13,3	1 670,5	24,7
1978	8 037,4	5 226,3	65,0	863,0	10,8	1 948,1	24,2
1980	8 402,4	5 243,6	62,4	1 026,9	12,2	2 132,4	25,4
1981	8 614,8	5 454,2	63,4	1 088,8	12,3	2 093,8	24,3
1982	7 594,0	5 127,8	67,5	1 209,3	15,9	2 257,1	16,6
1983	7 359,4	5 012,3	68,1	1 178,9	16,0	1 168,2	15,9

Key:

1. Year
2. Total
3. Including use of technical ground equipment
4. Agro-chemical centers
5. Technical ground equipment
6. Agricultural producer cooperatives and state farms
7. Agricultural aviation
8. Tha = /thousand hectares?/

At the present time, 83 percent of the nitrogen fertilization, 84 percent of the plant protection work, and 100 percent of the potash and lime fertilization work in the agricultural producer cooperatives and state farms is carried out by the agrochemical center cooperatives. In connection with the carrying out of nitrogen fertilization work and when applying plant protection measures, a division-of-labor type of cooperation with the agricultural producer cooperatives and state farms carried out on the basis of a suitable supplementary technology developed in the agricultural producer cooperatives and state farms is proving to be useful. This makes it possible to increase effectiveness in peak work periods through utilization of reserve capacities of the agricultural producer cooperatives and state farms and to better meet specific requirements with respect to fertilization and plant protection on smaller cultivation plots, especially in the case of vegetables, special cultivations, areas used for intensive grazing and other purposes (Tables 1 and 2).

Many agrochemical centers are demonstrating the fact that, if there is a high level of cooperative cooperation and work organization by way of specialized agrochemical center application brigades and close coordination of the use of technical ground equipment and agricultural aircraft, it is possible to utilize the available technological capacities in the most effective manner and to obtain from their use maximum performance. In this connection it is of decisive importance that in the work organization of the agrochemical centers themselves the decentralization principle be put to maximum use, that the agrochemical center brigades have a firmly established and far-reaching sphere of responsibility, and that the production-guiding cadres of the agricultural producer cooperatives and state farms competently guide the execution of the work by the agrochemical centers and that they provide effective guidance and control its realization in accordance with the established norms.

In actual practice, and depending on existing levels of development and given production-related facts, many organizational forms of cooperative cooperation are proving to be useful for the solid insertion of the agrochemical centers in the uniform division-of-labor type reproduction process of agriculture and for the enhancement of their responsibility and of their contribution for increased plant production and their effectiveness in utilizing the potential advantages of division of labor. Notwithstanding the multiplicity of local solutions, the following generally valid requirements for deepening the inter-enterprise facility character of the agrochemical centers emerge:

-Ensuring active work by the executive boards and functionary meetings, while observing the responsibility of the agricultural producer cooperatives and state farms for the work and development of their agrochemical centers.

-Guaranteeing a high level of politico-ideological educational work and of the work organization in the agrochemical centers in the sense of exact observation of the tasks in the uniform reproduction process,

--Ensuring a weekly harmonization and coordination of the work between production-guiding cadres.

-Implementing firm work and responsibility spheres of the agrochemical center cooperatives and inclusion of the agrochemical center collectives in the staging of competitions and in the social life of the enterprises and villages.

-Use of performance-furthering wage and bonus types with effective application of the "work performance within the prescribed agrotechnical deadline," "work quality," and "yield" parameters, especially in the case of the management cadres of the agrochemical centers.

With the increase in the contribution of the agrochemical center collectives for the development of soil fertility and intensification of plant production in their agricultural producer cooperatives and state farms, they simultaneously attained economic results without exceeding the established guidelines for agrochemical center price agreements (Table 3).

#### Fertilization--A Solid Component Part of Complex Soil Fertility Measures

On the basis of the steady deepening of cooperation between all partners in the uniform reproduction process of our agriculture it is for raising the level of effectiveness of fertilization necessary to develop the latter as a solid component part of plot-differentiated complex measures for bringing about an increase in soil fertility and maintaining productive plant cultivations.

The locally differentiated nominal values for soil fertility code numbers researched by agrarian scientists present a qualitiative new basis for scientifically founded use of fertilization resources.

A purposeful utilization requires the creation in all agricultural producer cooperatives and state farms of prerequisites for the introduction of the complex procedures for bringing about an increase in soil fertility and yields which have been passed on to them by agrarian science. This means that the soil analysis work carried out thus far must be deepened and that, on the basis of plot-determined actual vs targeted performance comparison, there must be planned and instituted effective combinations of field and plant cultivation as well as soil enrichment measures for the duration of at least one crop rotation sequence. These include the necessary fertilization measures for a proportionate development of the nutrient potentials of the soil areas with respect to macro-nutrients and micro-nutrients. In actual practice, the newly developed Plot Chart I within the framework of the electronic-data processed plot file is proving its value as an instrument for plot-related documentation of the actual-vs-proposed values of the soil fertility code numbers and the soil fertility measures derived therefrom. Their use and high-quality maintenance is indispensable for the indicated application of the complex procedures for raising the level of soil fertility.

In the course of practical planning and organization of the fertilization work it is necessary, depending on the existing soil fertility level, to guide the use of the organic and mineral fertilizers in such a manner that the proposed values of the soil fertility code numbers are reached in a phased manner and that proportionateness between them is ensured. Several years' production experiments and practical results provide proof of the fact that, with such a differentiated use of fertilization resources, combination effects can be opened up and nutrient utilization can be increased.

Corresponding to the scientific findings and positive practical experiences, the following practical measures have not become particularly important for the mobilization and the most effective use of the fertilization resources for soil fertility:

-In the foreground continues to be an exhaustive utilization of all reserves for an increased supply of organic substances to the soil in accordance with the requirements of crop rotation- and plot-related humus balances. The key position of this factor results from the basic role of the organic substance for the improvement of substantial soil fertility properties and the increasing covering of the rising need for macro- and micro nutrients from the industries' own sources. This at the same time is the main point of departure for the lowering of the specific consumption of mineral fertilizers.

-In connection with the organization of the fertilization projects, the available funds are to be primarily used for overcoming undersupplied areas. More attention must be paid to differentiation in the humus and nutrient supply situation within the individual plots through the use of varying quantities in different partial areas.

-Of great importance for the effectiveness of the use of fertilization materials continues to be a strict continuation of the measures for ensuring the least possible losses and a high quality of litter straw in connection with the fertilizing work.

-For preservation and remedial liming measures, additional local lime reserves, particularly the molasses of sugar factories and suitable industrial waste lime, are to be mobilized.

Table 3. Economic development of the interplant facilities of the agro-chemical centers (Figures rounded off)

	1975	1980	1981	1982	1983
(1) Anzahl	159 <sup>1)</sup>	257	257	261 <sup>2)</sup>	262
(2) AK/Betrieb	75	102	101	96	93
(3) X-Betreuungsfläche (Tha)	21	23	23	22	22
(4) Bruttoprod.-Betrieb (Mill. M)	3,0	3,9 <sup>3)</sup>	3,6 <sup>3)</sup>	3,5 <sup>3)</sup>	3,5 <sup>3)</sup>
(5) Bruttoprod.-AK (TM)	39	38	38	37	36,7
(6) Grundfonds-Betrieb (Mill. M)	4,0	7,8	7,9	8,1	8,3
(7) Grundfonds-AK (TM)	53	79	78	85	90
(8) Nettoprod.-AK (TM)		14,5	15,6	16,1	16,3
(9) Kostensatz (X) Plan		93,9	96,0	96,7	95,7
(10) Ist		99,0	98,0	95,0	94,8
(11) Produktionsverbrauch/100 MBP		61,2	59,5	56,1	53,4

{12)<sup>4)</sup> ohne agrochemische Brigaden bei BHG

{13)<sup>5)</sup> nach Preisen von 1979

{14)<sup>6)</sup> Veränderung resultiert aus Teilung von Betrieben mit großer Betreuungsfläche

Key:

1. Number
2. Agricultural cooperative/enterprise
3. X-area to be tended (in Tha) /presumably, "in 1,000 hectares/
4. Gross production--enterprise (in million marks)
5. Gross production--agricultural cooperative (in thousand marks)
6. Basic capital--enterprise (in million marks)
7. Basic capital--agricultural cooperative (in 1,000 marks)
8. Net production--agricultural cooperative (in 1,000 marks)
9. Cost rate (percent): Plan
10. Cost rate: Actual
11. Production expenditures/100 MBP /100/MBP = 100 mark gross production/
12. Without agrochemical brigades in peasants' trade cooperative
13. According to 1979 prices
14. Change results from splitting of enterprises with large tending areas.

Table 4. Development of the extent of application of soil nitrogen analyses and the plant analysis procedure for operational determination of additional applications for winter wheat

Jahr (1)	Bodenstickstoffanalyse zur 1. N-Gabe für WL-Getreide		Pflanzenanalyse zur 2 u. 3. N-Gabe für WL-Getreide		(5) Tha % z. Anbaufl.	
	(3) Tha % z. Anbaufl.		(4)			
	(2)					
1982	218,8	11,7	603,6	32,4		
1983	584,8	29,8	743,4	37,9		
1984	668,3	34,7	794,2	41,4		

Key:

1. Year
2. Soil nitrogen analysis for the first supplementary application for winter wheat (in 1,000 hectares)
3. Percent of cultivation area
4. Plant analysis for the second and third supplementary application for winter wheat (in 1,000 hectares)
5. Percentage per cultivation area.

#### Comprehensively Utilize Scientific-technical Progress in the Sphere of Fertilization

An important source for a more effective utilization of plant nutrients is furthermore the comprehensive utilization of the scientific-technical progress made in the area of fertilization itself. The agricultural producer cooperatives and state farms are making use of this progress to an increasing extent, particularly through taking into consideration scientific fertilization recommendations which relate to their plots and through the application of operational scientific control measures for supplementary applications.

As an additional progressive element in the work of several agrochemical centers, such as those at Altenburg, Kroepelin, Querfurt, and other locations, there is also developing increasing cooperation of agrochemical center cadres in inventory evaluations, analyses of nutrients of the soil and of plants, humus examinations related to crop rotation and individual plot conditions, and other inspection services in connection with the application of scientific control methods for the use of mineral and organic fertilizers and other scientific-technical measures for raising soil fertility and resource management. A number of agrochemical centers, such as Kroepelin, Jessen, and Friedland, have jointly with their agricultural producer cooperatives and state farm organized production experiments involving diverse variants of the available combination of agrochemical measures in order to attain knowledge and experiences with respect to locally suitable solutions for achieving maximum yields. They thus cooperate actively through qualified application of maximum yield concepts in their

agricultural producer cooperatives and state farms. This development underscores the significant potentials and the responsibility of the agrochemical centers for the application of the scientific-technical progress in the plant producing agricultural cooperatives and state farms. With the introduction of new agricultural chemicals such as liquid fertilizers and fungicides and with the higher demands made on soil fertility and quality analyses in the enterprises, this aspect of the work of the agrochemical centers for their enterprises is assuming increasing importance.

The increasing support and encouragement provided for the use of manifold scientific-technical progress measures in their agricultural producer cooperatives and state farms in connection with the raising of soil fertility and intensification of plant production also includes the requirement that the agrochemical centers themselves reliably base their work on scientific findings. One indicator of this is the creative utilization of the fund-related electronic-data processed fertilization recommendations for joint preparation of plot-related fertilization norms and their disciplined observance in carrying out the fertilization work, as well as the application of soil nitrogen ( $N_{an}$ ) and plant analysis and/or the quick nitrate test for arriving at precise operational specifications for the first and second nitrogen applications for winter wheat. The calculation of electronic-data processed fertilization recommendations has in recent years been generally carried out for the entire socialistically used agriculturally utilized area. The area of application of soil nitrogen analysis for the first nitrogen application for winter wheat has been increased to 794,000 hectares in 1984. The plant analysis procedure for determining the second and third nitrogen application for winter wheat was made on 794,000 hectares in 1984. To this must be added the first-ever broadly used short nitrate test carried out for the same purpose on 200,000 hectares (Table 3).

Based on these examinations, the area of application for the second and third nitrogen applications for winter wheat has been developed steadily as an important measure of effective nitrogen utilization. The area of application for the second and third nitrogen application for winter wheat came to 1.4 million hectares in 1984. Additional important steps in the sphere of scientific-technical progress for yield-effective utilization of the available plant nutrients have in recent years been carried out through extensive use of grain stem stabilizers. With the incipient extensive use of fungicides for wheat, the combination of agrochemical measures for better utilization of the performance potential of the plants and the applied nutrients in reaching a qualitatively new level.

Scientific tests and production experiments indicate that purposeful application of micro-nutrients at locations with deficiencies via leaf-fertilizing procedures is equally important for achievement of yield

increases along with decreasing specific production-related expenditures. The progress made in the spheres of plant nutrition and fertilization science thus confronts the cooperative farmers and workers steadily with new demands requiring a high degree of willingness to work for scientific-technical progress.

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UNTREATED FARM, INDUSTRIAL WASTE ADD TO BALTIC SEA POLLUTION

East Berlin DEUTSCHE BAUERN-ZEITUNG in German No 45 9 Nov 84 pp 24, 25

[Interview with Klaus Winkel, deputy director of the Water Management Directorate Coast, by Ruediger Tamm; date and place not given]

[Text] [Question] As is apparent from the studies of marine researchers, the oxygen relations in the depths of the Baltic Sea and thus the living conditions of many of its inhabitants have gradually worsened since the turn of the century. To what exactly can that be attributed?

[Answer] The reasons are seen primarily in the hydrography of the Baltic Sea. It is a shallow-water sea that is linked with the world ocean only through the Large and Small Belt as well as the Sound by way of the Kattegat and the North Sea. It has to exchange its water with the North Sea through these "eyes of a needle." There is no other possibility. But since this exchanges only about 5 percent of the water each year, it takes an average of about 20 years before the contents of this inland sea are renewed. That has an effect on the salt content of the Baltic Sea; it is greater in the lower layers than it is in the upper layers. Different specific weights for the individual depth sectors result from the brackish character of the Baltic Sea waters and from the stable water layering. This circumstance makes it more difficult for there to be any mixing of the water masses from top to bottom or vice versa. In addition, the bottom relief is very broken up and the high and low tides play practically no role. Taken together, that hinders a lasting and regular aeration.

[Question] That is evident. But does it also explain the fact that in recent years the oxygen relations in the relatively shallow parts of the Baltic Sea have also developed unfavorably?

[Answer] No, there are other reasons for that. All of the countries around the Baltic Sea put stress on this relatively small inland sea through sewage and other wastes. To a slight degree, that is also true for the GDR. We endeavor to reduce our part continually. The government is devoting the greatest attention to this. Thus as early as 1973, the Council of Ministers decided on a program that includes many measures that should help to continue to reduce the stress on the Baltic Sea from the land, water and air in a comprehensive and complex manner.

[Question] In putting into effect this comprehensive program, the Directorate for Water Management Coast must have special responsibility.

[Answer] Yes. After all, we are responsible for a drainage area of about 27,000 square kilometers. In this territory, we have to make sure that the waters remain clean and that their utilization capacity is not diminished. To the extent that we are successful in keeping pollutants away from the inflows, we naturally relieve pressure on the inland sea.

[Question] What specifically does that mean?

[Answer] Among other things, to continue to improve the purification of municipal, industrial and agricultural sewage. Thus our housing construction program has made it absolutely necessary to build additional sewage treatment systems and to rationalize or reconstruct others. In this way, in the years 1976 through 1980 alone, we were able to reduce the stress on the coastal waters and inflows by the amount of sewage resulting from 540,000 inhabitants. That is, it was possible to reduce the stress on the Baltic Sea by about 20 percent. And this trend has continued since then.

[Question] Nevertheless, however, there are still problems. We are interested in knowing whether agriculture is also troublesome to you.

[Answer] Oh, certainly. I immediately think about silo seepage, the sewage from dairies, and liquid manure.

For example, if a wagonload of liquid manure, for whatever reason, is not taken out into the fields but is emptied according to the motto "hose it into the ditch," that will have unpleasant consequences. It is no consolation for us even if the guilty farm is discovered and has to pay a fine of 200 marks for each cubic meter of liquid manure. It would be best if industry and agriculture had an even better realization of the fact that the production process is not finished until the wastes have been utilized, indeed in the most economically advantageous manner possible.

[Question] Exactly how do you catch up with water polluters?

[Answer] We annually have to assess the quality of about 3,300 kilometers of flowing waters in addition to standing waters, ground water, and the lake waters of the GDR. It involves key waters that are checked regularly according to an exact schedule. Thus our colleagues from the State Water Control Authority perform more than 400 checks each month. The samples brought in are analyzed under the most varied aspects by our laboratory workers. It thereby becomes clear what is not in order where and why.

[Question] Are you assisted by unpaid helpers in your controls?

[Answer] This task could not be performed at all without them. There are about 150 helping us. We often have their tips and indications to thank for the fact that violations of the water law can be cleared up quickly and positively. Even several cooperatives had to pay sewage fines. After that of course, if you will, the word got around. Among other things, more liquid manure pits were built, and stronger controls were established on the whereabouts of waste products.

Even though, in a manner of speaking, our employees sleep with the water law of the GDR under their pillows, they do not do that so that they can impose as many fines as possible. They are always ready to give advice when, for example, it involves selecting sites for storing fertilizer or for silos.

[Question] In connection with your work, one often hears the words "limiting value."

[Answer] It characterizes the allowable stress limit of the waters with substances. If it is exceeded, countermeasures must be taken. It plays a role in the analysis of water samples, because it determines the degree to which the waters can purify themselves. To some degree, this natural capacity for self-purification is one of nature's free gifts, which we must use to the extent possible, because in this way we can save many millions of marks. As everyone knows, once the waters become overloaded with pollutants or wastes and turn over, as it were, it becomes extremely expensive and wearisome to bring them back to health.

[Question] Our colleagues from the control ship "Stralsund," with whom we were en route, told us that what they bring back from their voyages by way of samples is, in a way, the most expensive water.

[Answer] That is not entirely wrong. For it is not exactly inexpensive to maintain and operate such a ship (and we have four of them) with all that is involved. What you experienced, by the way, is part of the obligations that the GDR has entered into in accordance with international agreement to protect the marine environment of the Baltic Sea region, an agreement that went into effect 3 May 1980. This agreement, which has the purpose of protecting, maintaining and increasing the values of the marine environment and its natural riches, naturally imposes some obligations on us as well, obligations that we are happy to meet, precisely because water is so precious and dear to us.

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CSO: 2300/144

GERMAN DEMOCRATIC REPUBLIC

BRIEFS

LIGNITE EXPORTS TO PRC--In connection with the development of its coal industry, the People's Republic of China wants to rely on GDR experience and deliveries. The possibilities in this respect were explored in East Berlin by the Chinese Minister of Coal Industries, Gao Yangwen. He not only spoke with the GDR minister for coal and energy, but also with the minister for the chemical industry. On the occasion of his meeting with SED Politburo Member Werner Krolikowski both sides, according to NEUES DEUTSCHLAND, pointed out that "for the further shaping of the state and economic relations between the GDR and the People's Republic of China, scientific-technical and economic cooperation can make an effective contribution in the coal industry sphere. The commodity exchange between both states is in need of stimulating contributions. The turnover volume decreased from 870 million foreign-exchange rate marks in 1980 to 387 million marks in the past year. In the course of the East Berlin talks, the usefulness of cooperation in the sphere of open-pit mining technology was emphasized. In its capacity as the world's biggest lignite producer (exclusively in open-pit mining) the GDR, even when measured against international standards, is qualified to have an important say in this matter. Its own 1984 production is expected to increase not by 5 million tons, as stipulated in the annual plan, but by 16 million tons to 294 million tons, and thereby to attain the five-year target set for 1985 ahead of time. Another subject discussed in the course of the negotiations with the Chinese minister for coal industry was that of coal gasification. The most important economic policy expert, Politburo Member Guenter Mittag, has in his article written on the occasion of the 35th anniversary of the foundation of the state made the statement that the GDR should utilize the processes for coal gasification and liquefaction in order to "achieve a distinct increase in the industrial-substance utilization of lignite by 1990." At the present time, 30 million tons of raw lignite serve as raw material for chemical products. In addition, coal and lignite are, in line with the plan standards, used as a substitute for imported crude oil. /Text/ /Duesseldorf HANDELSBLATT in German  
12 Sep 84 p 97 8272

IMPORTANCE OF NATURAL GAS--In the energy policy of the GDR, domestic natural gas has attained a surprisingly high ranking. Its share in the primary energy yield has now reached the 4 percent level. Overshadowed by the all-dominating lignite, whose share in energy consumption

is more than 71 percent, this appears to be a rather modest figure. But what is important is the fact that the gas is pumped from domestic sources without burdening the foreign-exchange resources. The government is energetically pushing ahead with the promotion and exploration of new deposit sites. It thereby wishes to fill the gap developing as a result of the accelerated withdrawal from oil and the upheavals in the energy industry connected therewith. Domestic natural gas which, according to reports from the GDR, does not have the quality of the Soviet natural gas, is being put to use there. However, the 6.4 billion cmb obtained from the USSR in 1983 are primarily processed by the chemical industry for the production of fertilizer substances. In the past decade, the GDR economic policy still facilitated the restructuring in favor of oil and natural gas. But then the USSR, which in 1983 rose to the position of the biggest natural gas producer in the world, conjured up a new situation. It froze its crude oil and natural gas deliveries at the 1980 level. Due to insufficient export capability, the GDR is unable to compensate for this by way of imports from other countries. Additionally, the East Berlin energy balance is unfavorably affected by the delayed development of the east European nuclear power plants arising from Soviet delivery problems. By 1990, nuclear power capacities amounting to 37,000 megawatt (MW) are to come into being in East Europe. At the end of last year, however, only 4,900 MW were in the network. Text  
Munich SUEDDEUTSCHE ZEITUNG 30 Aug 84 p 25/ 8272

NATURAL GAS RESERVES--On 17 August 1969, the first flame fed by natural gas from the Salzwedel area was burning in the Magdeburg Thaelmann plant. Since that day, the more than 1,200 employees of the Salzwedel state-owned natural gas works have not failed to provide one single cubic meter of this important energy carrier to our national economy. With the bestowal of an honor banner on the occasion of the 35th anniversary of the GDR, the exemplary achievements of the extraction and probing equipment repair collective and personnel responsible for maintenance and rationalization methods were given recognition. In the course of the past 15 years, the biggest "gas works" of our republic was attaining its growth in the area around Salzwedel. In the first ten years of the latter's existence, the industrial commodity production has experienced an eight-fold increase. In the period from 1982 to 1984, the yield volume again increased by more than 35 percent. This means the following: Hundreds of thousands of warm rooms and stable production in thousands of enterprises. In the course of the honor ceremony, State Secretary for Geology Dr Konrad Goldbecher expressed his appreciation for this high sense of economic responsibility on the part of the natural gas workers, geologists, and technicians. The main recipient of the Salzwedel natural gas is the Schwarze Pumps gas combine. Today, gas pipelines extend to as far as Premnitz, Rostock, and Schwerin. Because the natural gas workers know what depends on them, their daily watchword, which this year originated from the "IXth Party Congress" of the Andorf natural gas processing plant, is the following: Plan fulfillment is our duty; exceeding it is our honor, quality work is our conscience. At the present time, the natural gas

workers are preparing for the 1984/1985 winter stretch. Then, as of 1 October, there apply to them the standards of the 1985 plan, for which they have prepared themselves well in a befitting manner. Many proposals involving economic benefits in the value of almost 310,000 marks were submitted during the discussion of the 1984 plan. /Text/  
/Magdeburg VOLKSSTIMME 27 Sep 84 p 3/ 8272

IMPROVED WATER QUALITY--The employees of the enterprises of the Potsdam Meat Combine are making an important contribution to water protection. Together with water management specialists, they are gradually reconstructing or renovating the preliminary sewage filtration and treatment systems. Most of these systems were built about 100 years ago. Today at the Potsdam slaughterhouse alone, 900 pigs and 225 cattle are marketed every day. The slaughter capacity has increased by a factor of almost 20. At present, the combine needs 1.6 million cubic meters of hygienically unobjectionable drinking water for its production. The Potsdam enterprise once channeled the sewage into the Havel. It has now been one of the first enterprises to receive a facility that delivers the production sewage to the city network after preliminary filtration. Prior to being returned to the water cycle, more than 1,100 tons of grease sludge are separated out and then further processed. Previously, not only were these substances lost to feed usage, but they also encouraged undesirable plant growth in the waters. [Text] [East Berlin DEUTSCHE BAUERN-ZEITUNG in German No 45 9 Nov 84 p 3] 9746

ENVIRONMENTAL PROTECTION ASSESSED--Leipzig--Representatives of the VEB [state enterprise] Regis Brown Coal Works and the VEB GISAG, headquarters Leipzig, recently reported to the Permanent Commission for Environmental Protection, Water Management and Recreation of the Leipzig District Council on measures for environmental protection. The representatives praised the efforts of the workers in the Regis Brown Coal Works, who are systematically reducing the discharge of dust at the Deutzen briquette factory through the installation of the appropriate systems, and who returned a total of 2,435 hectares of mining terrain to agriculture, forestry and other users from 1968 through 1983. The people's representatives were not satisfied with the environmental protection measures of the VEB GISAG main enterprise, which has so far failed to fulfill a number of requirements. Heinz Lippmann, Leipzig District Council member for environmental protection, water management and recreation, reported on the balance and plans in regard to environmental protection in Leipzig District. He reported that the construction of the biological sewage purification system this year in Espenhain is being continued according to plan. In 1983 in Leipzig District, investments in the amount of M55 million were realized for environmental protection, including M36 million for preserving the purity of the waters and M9 million for preserving clean air. [Text] [Leipzig LEIPZIGER VOLKSZEITUNG in German 18 Oct 84 p 2] 9746

GRAEBENDORF DELIVERS LIGNITE--Last Friday, the first coal train rolled out of the Graebendorf open-pit mine of the Cottbus lignite Works. Thus the miners of this new mine fulfilled a commitment on the occasion of the 35th anniversary of the GDR. At a meeting the miners gave their assurance that they will still deliver in the course of this year 800,000 tons of raw lignite, primarily for the supply of the Luebbenau-Vetschau power plants. For 1985 it is already planned to produce an annual 4 million tons. /Text/ /Magdeburg VOLKSSTIMME  
in German 29 Sep 84 p 4/ 8272

CSO: 2300/133

MODIFICATION OF DECREES ON FINANCIAL POLICY, BANKING SYSTEM

Budapest FIGYEL0 in Hungarian No 46, 15 Nov 84 pp 1, 5

[Interview with Undersecretary Dr Matyas Timar, president of the Hungarian National Bank, by Dr Gyorgy Varga: "Changing Bank System"; date and place not specified]

[Text] Within the framework of continued development of the macroeconomic management system, the Presidential Council recently modified the 1979 public finance law as well as some provisions of the 1967 statutory decree number 36 concerning the Hungarian National Bank (MNB). Dr Gyorgy Varga questioned the MNB president about details of the modification.

[Question] The Central Committee standpoint on comprehensive development of the macroeconomic management system and the economic debates preceding it have stressed the importance of money and credit policy. What sort of change can we count on in this area in 1985? Is there likely to be an increase in the margin of movement in money and credit policy?

[Answer] Money and credit policy is closely linked to other elements--planning, the price system, income regulation--of the macroeconomic management system; their effect on each other is significant. Enhancing the role of money and credit policy is not a task that can be performed overnight; rather, it is a long-range program. The price system still does not accurately convey the market's value judgment, the relation between supply and demand, and profits often do not reliably reflect efficiency and enterprise performance. The equilibrium relations have improved, but they still haven't become adequately stable. For all these reasons, the budget will continue to play a large role in the comparatively large-scale redistribution of enterprise incomes.

It follows from this that in 1985 the budget and the capital system will have a more significant role in macroeconomic management than credit policy or the money market method. This is a fact that can only be

altered by strengthening the equilibrium and supplanting the direct methods of central management. The situation is reflected well in the fact that, for example, out of the 1984 investment of 180-183 billion forints the budget's share is 75-80 billion, the bank credit's share 24 billion forints. Credit's share in working-capital financing is also low. Roughly half the enterprises do not avail themselves of credit at all. All this makes clear credit policy's restricted scope of movement. In reality, however, monetary policy's role in the capital system of macroeconomic management must be increased, because it can play an important part in influencing enterprise decisions and in redistributing energy sources, which, in harmony with economic policy goals, helps to improve the economy's income-producing capacity.

[Question] The enterprises react far too sensitively to changes in money and credit policy or rather to the conduct of the institutional system which embodies it. Thus, for example, the MNB is often criticized for the official nature of its activity. Is a change likely in this area?

[Answer] Part of the official functions involves the duties of the MNB as an issuing bank. It will remain that way in the future. Apart from this, the state agencies often make decisions which have consequences for the granting of credit. The bank implements the state decisions and then grants credit, unless the credit target is unsuitable from the standpoint of efficiency and repayment. Recently in such cases we have insisted on a budget guarantee so that we are assured of collateral for the loan. I must say that the economic units do not object to this bank activity, yet it is a quasi-official function.

The second type of intervention is when, for the purpose of regulating purchasing power, the proper state agencies instruct the bank to deprive the economic units of free assets and have them pay back loans before the deadline. These actions--understandably--elicit protests from the enterprises.

In my opinion, the bank in the future will be able to exercise such official functions only in an exceptional case.

[Question] What might such an exceptional case be?

[Answer] For example, amortization concentration ends in 1985, and enterprise purchasing power will consequently increase. In the interest of assuring market equilibrium, a part of this money must be used for paying off loans. This will be a one-time action in which the bank participates, but I emphasize that such actions are at variance with bank functions.

Development of bank conduct of a business nature presupposes that in the future it will be less and less necessary to grant or withdraw credit on the basis of state resolutions and that the decision to grant credit will take place after weighing the risk and the returns. This also assumes that granting credit becomes--in due time--a matter of direct involvement by the credit institutions and thus a risk factor.

[Question] Why only in due time?

[Answer] Because I do not consider the creation of direct bank involvement realistic under the given market and price conditions.

[Question] What is the chief characteristic of the institutional changes scheduled for 1985?

[Answer] Within the MNB organization we will implement separation of the functions of issuing banks and credit banks, and we will strengthen the issuing bank methods in the management of the credit domain. On the one hand, the goal in management of issuing banks is regulation of purchasing power by granting credit and, on the other hand, diversion of the use of purchasing power in the direction of national economic priorities. This also means that instead of credit of a general economic nature what comes into prominence are mandatory reserve installment in deposits, offering credit for refinancing, a bank discount on securities linked to the granting of commercial credit among enterprises, the application of a differentiated interest rate for issuing banks and credit banks, and still other measures. We will employ issuing bank methods to an increased degree and in a broader domain to influence financial funds and banks which exist and which are to be created. This means a change from the past, because organizations which conduct financial activity and which have been founded in recent years operate independently of issuing bank supervision. In the future, these organizations' activity will be affected by the just mentioned issuing bank--and not administrative--methods in the interest of uniform monetary policy. We will assert money and credit policy viewpoints more consistently in governmental work.

[Question] We've talked about granting credit on a business basis or rather about the economic policy and market conditions for it. How are the conditions for it reflected in the modification of the bank system?

[Answer] The MNB will remain a uniform organization after separation of issuing bank and credit bank functions. We will develop credit bank branches within the bank and separate them from the issuing bank branches. We are creating two credit branches: one is concerned with financing industry, construction, transportation, telecommunications and the domestic trade enterprises in these fields, the other with financing agriculture, the food industry and the domestic trade enterprises connected with them. The credit relations of foreign trade activity belonging to industry, or rather the food industry, remain unchanged in the appropriate branches.

These branches will function like credit banks, yet they are not real commercial banks. These grant the bulk of the credit, first and foremost to large enterprises. What changes is that we abolish the annual profitability formulas imposed centrally up until now. We are thus entrusting the credit branches and other banking institutions offering credit with deciding which commercial goals and which transactions

(likely to bring repayment) they will finance. It will also be possible --in due time and within narrow limits--for organizations offering credit to have different interest rates and deadlines.

[Question] With what kind of possibility for issuing credit do these branches begin?

[Answer] The money resources are invariably tight. The credit branches' ability to function--because of a lack of resources--can only be established at the outset by offering credit in the form of significant issuing bank refinancing. The branches can supplement this with enterprise deposits, loans from other banks and perhaps money from debenture issues. The credit branches can form their own business policies on the basis of market relations, the issuing bank policy and the refinancing practice, as well as an analysis of their own liquidity. This is also helped by the fact that the interpretation of creditworthiness is becoming more flexible; it is supplemented by such elements as the amount of credit compared with one's own assets, the level of enterprise leadership, the enterprise's innovative capacity and market reputation, etc.

[Question] Can entrepreneurial capital appear within the framework of the state bank system on a wider scope than up until now?

[Answer] The MNB Enterprise Fund went into operation this year. Within the organization of the State Development Bank (AFB), several monetary funds of an enterprise nature also came into being in 1983-84, for example, the Technical Development Financial Association or the Construction Industry Innovation Fund. These have so far participated in commercial undertakings of admittedly small volume. The amount lent out by the MNB Enterprise Fund is 1.6 billion forints. Our experiences are good, repayment is favorable, and this has made it possible to expand the fund. It is therefore our intention to extend the entrepreneurial possibility to the credit branches as well. This also pertains to assertion of the bank's commercial character. The AFB, the Foreign Trade Bank and the OPT [National Savings Bank] are expanding their entrepreneurial activity, too. For example, the OTP is becoming involved in the debenture market and wants to transform the Entrepreneurial Office into an affiliate bank. Creation of a union of savings cooperatives is planned, and transformation of the cooperatives' mutual funds into separate or joint banking institutions is not out of the question.

[Question] How are the two credit branches linked institutionally to the MNB?

[Answer] Managers of the two branches are both deputy chairmen in the MNB. The deputy chairmen will set up the board of directors and carry out credit censorship involving loans of a much greater amount than up until now. In all likelihood, they can independently decide about twice the current maximum credit volume. For the time being, the MNB president's office will also deal with large-sum credit applications in 1985.

[Question] Where are the megye director's offices and their branches located in the bank hierarchy?

[Answer] They will continue to be members of the MNB's uniform network. Within the megye director's offices, we separate the functions of issuing banks and credit banks from each other, and the two credit branches carry out their credit-granting tasks under professional supervision.

[Question] Will the nature and content of credit-policy guidelines change in the future?

[Answer] They will change in a certain sense. For one thing, the previous allocation of credit amounts will decrease, i.e., we will be better at concentrating the credit which can be granted under various titles. The profitability formulas will end. The establishment of interest rates and payment deadlines will become more flexible--to a small degree.

[Question] What will the functions be of the affiliate banks the MNB is establishing?

[Answer] We are transforming the current Budapest Institute into an affiliate bank under the name of Budapest Credit Bank. It will finance at the outset middle-sized industrial enterprises as well as local and cooperative industry. It can also employ its resources to participate in undertakings. We are creating the opportunity for free choice in the enterprise sphere. Accordingly, if some cooperative or local industrial enterprise is not satisfied with the services of the bank agency granting it credit, then it can become the customer of another credit-granting agency.

[Question] What can cause an enterprise to choose one credit-granting agency over another?

[Answer] There may be differences among credit-granting agencies, branches and banks primarily in the standard of services, the speed with which affairs are transacted, and perhaps know-how.

[Question] Will it also be possible for large-scale enterprises to choose freely among the branches?

[Answer] Yes.

[Question] What will be the fate of the current Innovation Fund?

[Answer] It will be transformed into an innovation banking institution. Its area of operation will continue to be bank financing for the realization of innovations.

[Question] Is the concept similar to the enterprise division of the Central Exchange and Credit Bank?

[Answer] Yes. This will be an organization operating in the form of a joint stock company, under the name of Enterprise Banking Institute. The organization's main task is to take part in the flow of capital by weighing commercial viewpoints on the basis of profit interest. The banking institute would undertake a greater role in transmitting funds, in financing associations, in leasing and in carrying out securities transactions.

[Question] Will it be possible, outside the organizations mentioned, to establish newer banking institutions with special regard for participation in foreign capital?

[Answer] It will be possible with the agreement of the finance minister and the MNB president. I would like to point out that while it is expedient to expand the domain of banking institutions, I would not consider intermittent growth in the number of banking institutions expedient. Nor would it be proper if the bank system in the future developed within a sectoral framework, because this would hamper to a large degree capital flow and intersectoral development. It is possible to establish banking institutions in Hungary with foreign capital and with the approval of the Council of Ministers.

[Question] Directors of enterprises bearing large credit burdens think that the financial system routinely makes them uncompetitive, because their investments can only be financed from loans with an amortization and interest payment obligation. Will it also be this way in the future?

[Answer] We have a fair number of enterprises bearing large credit burdens. The burdens at some enterprises approach and even reach the entire enterprise assets. Therefore, in those enterprises where the credit burden is very large and the proportion of own capital is small, we will gradually resort to capital allocation in the future.

There is also the notion that the banks can become joint owners by purchasing stocks or by similar methods, and in this way the enterprises' credit burdens would be reduced. The feasibility of this must be studied, however.

[Question] On the basis of all this, is there likely to be a more vigorous development of the capital market mechanism?

[Answer] I believe there is. Pointing in this direction are the probable pickup in debenture issues, which today are still not of high volume, an increase in commercial and enterprise actions by banks, and the direct participation of foreign capital in domestic enterprises.

[Question] How do the foreign partners and the interested international financial organizations react to these changes?

[Answer] Favorably. The monopoly on foreign exchange policy remains in force unchanged. For the partner this means security from the viewpoint of currency credit conditions and fulfillment of debt service obligations. Separating the functions of issuing and credit banks, strengthening issuing bank methods and developing the diversity of the institutional system have provoked great interest, and the fact that we are implementing the changes not overnight but gradually, in harmony with the development of economic conditions, has been received enthusiastically.

[Question] The exchange rate plays an important role in activating money market methods. Is it likely that in the foreseeable future a change in exchange rates will follow more flexibly changes in international exchange rates?

[Answer] Yes, we are working on the solution, and work is in an advanced stage.

[Question] Do you see it as a possible long-range measure that the activity of issuing banks is separated organizationally from the activity of credit banks and in this way the two-tier bank system is consistently realized?

[Answer] It's an open question. In a few years, we will examine the experiences of the changes, and on the basis of them as well as analysis of the current economic situation it will be expedient to decide how to continue.

12327  
CSO: 2500/93

ESTABLISHMENT, OPERATION OF ENTERPRISE SUBSIDIARIES DISCUSSED

Budapest FIGYELO in Hungarian No 47, 22 Nov 84 pp 1,6

[Article by T. Katalin Forgacs: "Are Hungarian Daughters So Pretty?"]

[Text] Let us begin with the classic detective question: "In whose interest?" In whose interest is it that the industrial enterprises are establishing "daughter" enterprises?

One can find very lukewarm interest among the possible "mamas". Since the 1981 modification of the enterprise law--which made it possible to found subsidiary enterprises--up to the spring of 1984, a total of 28 subsidiaries were formed in the area of industrial enterprises.

The causes are various. Let us begin with the fact that the enterprises are not really market sensitive; flexibility is not really important as an economic factor. At the same time large size--belonging in the "respect" zone--facilitates getting a share of the restricted resources. We could continue the list by noting that directors' salaries continue to change as a function of the size of the enterprises and do not change as a function of the effectiveness of enterprise operation. At the same time we cannot experience any real progress in enterprise cost sensitivity. And custom is a great lord. The enterprises have really become accustomed to the fact that for decades a modification of the enterprise organizational structure took place only in the wake of central measures--just look at the recurrent waves of amalgamations, breakups, reorganizations and separations.

After such antecedents it is not surprising that organizational modification initiatives from the enterprises have not developed to a greater degree following the cited modification of the enterprise law. And let us admit it, most of the existing 28 subsidiaries were born as a reaction to strong urgings, "expectations," of a chief authority. Finally, not a few enterprises were prompted to think it over precisely by the practice of guiding organization intervention. As Adam Juhasz writes: "In the event of the viability and efficient operation of a subsidiary enterprise the enterprises count on its separation by means of state administration, thus taking it out of their guidance domain."

### On Short Leash

But interesting new motifs can be experienced in the interest relationships of regional economic guidance. Whereas earlier the creation of new jobs forced every other factor into the background and the councils accepted with pleasure the move to the provinces of enterprises headquartered in Budapest, now they would like it if there were more independent enterprises with local headquarters operating in their areas, because this means more secure and more easily planned income sources. This may explain why many councils are urging that factory units or sites become independent.

Such a change in the interest of the councils coincided with those provisions of Council of Ministers decree No 42/1981 according to which the leaders of internal enterprise units--factories, factory units, sites--also could initiate organizational changes. They can propose that the economic units led by them become independent or be joined to another enterprise. (FIGYELO, No 19, 1982: "The Person Taking the Initiative: The Leader of the Factory Unit".) In this connection it may be that the leadership of one of the first "mothers to put out their daughters," the April Fourth Machine Industry Works, actually took the offensive as a defense--they acted first, rather than being forced to act. Considering the high degree of independence of its factory units and the specialization which can be experienced in their profiles and in their technologies it is not at all excluded that sooner or later--with support from the councils--the factory units themselves would have demanded complete independence and that the subsidiary enterprise form was developed to prevent this. So it is also possible to head off central measures involving complete separation by creating subsidiaries.

The example of the April Fourth Machine Industry Works is also instructive from the viewpoint of how short or long a "leash" the "mother permits its daughters." Here the daughters turn over 30 percent of the taxed profit to the parent enterprise, for property management, security and services. The director of the parent enterprise appoints or can recall the directors of the subsidiaries.

The founding charter states: "The founder will direct the subsidiary enterprise to perform a defined activity if enterprise obligations require it and this obligation cannot be guaranteed with economic tools or cannot be guaranteed with the required effectiveness with economic tools. Compensation for material and other disadvantages arising at the subsidiary enterprise as a result of fulfillment of a directive to perform a definite activity will burden the founder." It might be noted, of course, that the right of issuing an unconditional directive is contrary to the independent operation of the subsidiary enterprise. Thus the criteria for this should be defined more precisely in the founding resolution, because the law defines the cases for directives which can be issued to a state enterprise.

### Daughters Engaged in Business

But there are examples of even shorter leashes too. For example, in the case of a subsidiary enterprise called Dunatextil of the Baja Fine Cloth Enterprise

the founding resolution states that "... the founding enterprise can withdraw 10-70 percent of the taxed profit of the subsidiary enterprise depending on whether the parent enterprise or the subsidiary enterprise has greater need for the profit at a given time." And it is the position of the director himself that he regards service to the founding enterprise as the primary task of the subsidiary enterprise, especially in the present difficult situation of wool industry enterprises.

It is an interesting aspect of the case that otherwise, in regard to a considerable part of the activity, the mother gives a really free hand to her daughter. This "mini" commercial office employs a total of 35 persons full time and about 60 who work at home. This tiny, flexible organization buys up the remnant cloth ends and yarns of the parent enterprise--and other enterprises--and in an average of 2-3 months has them modelled, knitted and sewn. It sells the small series ready-made products in its own shops or in the shops of another enterprise (it is authorized to conduct both wholesale and retail activity). In 1983 the subsidiary, which got started in December 1982, had sales receipts of 106 million forints and expects receipts of 150 million forints this year. About 30 percent of their acquisitions come from the parent enterprise--the Baja spinning mill sells to other large enterprise--and otherwise buys and sells freely from other enterprises; indeed, it is planning to build up a commercial agent network. In the course of their activity they use guide profit keys, and the parent enterprise keeps accounts at wholesale prices too. For the time being the activity of the subsidiary, established in the small enterprise form, is expanding dynamically, which is thanks not least of all to their competitiveness in prices. Because of work being done at home the overhead is small and the full time workers do different types of jobs at once--for higher wages, it is true, than at the parent enterprise.

Over the longer run, however, there is a question of what sort of tensions will be produced by the above-mentioned "flexible" division of the profit, which causes significant insecurity. The profit was divided up in an even more interesting manner at another subsidiary, also engaged in business.

#### Playing Hide-And-Seek With the Regulators

The Light Industry Machine Manufacturing Enterprise established a subsidiary enterprise trading in clothing industry tools of production, the KAEV [Light Industry Spare Parts Manufacturing and Supply Enterprise]. Earlier the parent enterprise, as an industrial enterprise, also provided capital equipment marketing functions. In addition to its own industrial sewing machines, shoe machine parts and light industry accessories it sold foreign sewing and knitting machines and the necessary parts for them. In essence the subsidiary enterprise was formed from the earlier enterprise capital equipment marketing office and parts office. So thereafter the parent enterprise functioned as a pure profile producing enterprise; and the subsidiary enterprise carries out the capital equipment marketing functions one street down. In 1983 the subsidiary, which started with 54 people and a circulating fund of 120 million, achieved sales receipts of 456 million forints. Its profit last year was 19 million and is expected to be 27 million forints this year. The clothing industry machines and parts of the parent enterprise make up about 44 percent of its acquisitions; import makes up about the same amount; the rest is made up of other domestic

products. Selling all these machines and parts the subsidiary enterprise is essentially conducting wholesale activity, primarily for the cooperative textile and shoe industry. It also deals to a smaller extent with contracted manufacture.

Knowing the favorable market situation of the majority of the capital equipment marketing enterprises, deriving from their monopolistic positions (see the 27 September 1984 issue of FIGYELO), the question arises: What motivations guided the parent enterprise when it "handed down" this obviously profitable activity?

In the opinion of the economic director of the parent enterprise--and this was the only daughter that showed the draft of the article to mamma--the basic reason for the founding was that the regulators punish the impure industrial profile activity. For example, when establishing the production tax imposed on non-convertible export all the domestic activity is listed together and the tax key is established on the basis of this; so the enterprise was paying a tax on the "lower" profitability capital equipment marketing activity too.

It is an interesting aspect of the case that originally the parent enterprise was going to lay claim to 3 percent of the sales receipts under the heading of administrative services. Finally, however, the deal closed by having the parent enterprise get 20 percent of the profit, and the subsidiary enterprise itself organized the administration.

#### The Developer

It is certainly true that in the end the subsidiary is living a more independent life than the parent enterprise had originally imagined. This however--as could be experienced in the case of the ERFI [Heavy Current Product and System Development Institute] also--can bring even the parent enterprise un hoped-for results. The acronym ERFI hides the Heavy Current Product and System Development subsidiary enterprise, which was formed by the new large enterprise made up of the factories remaining after the decentralization of the VBKM [Electrical Equipment and Appliance Works]. (It is an irony of fate that the ERFI was an independent Institute 20 years ago, before it was attached to the VBKM.) Many debates preceded the founding of the subsidiary enterprise; many objected that the institute, which has a general designing division and a contracting office, would not be at the disposal of the parent enterprise but would work for the composition. (Within the framework of the former VBKM only the large enterprise employed the institute. The institute was financed from the technical development fund of the giant firm, with sales receipts of 6.5 billion forints.) Life did not justify these anxieties, because under the present restricted investment possibilities even the VBKM could not tie down the full capacity of the institute and so, for example, a part was sold to Tesco. But as for the contracting office, the situation here is that this division is concentrating its energies on undertakings in heavy current electronics, primarily those new types containing much intellectual activity--in contrast to the factories where, by the nature of things, everyday production and large series manufacture is "lord." Thus, just the opposite of what was feared, the subsidiary enterprise is beginning to become a sort of "advance bastion" for the founding factories.

The situation today is that the daughter is getting business for the mother, since the prototypes of the intellectual products designed by the developers are manufactured in its experimental shop.

Here the subsidiary gives 33 percent of its taxed profit to the parent enterprise. The parent enterprise makes use of about 30-40 percent of the capacity of the institute, which employs almost 300 people; its share is decreasing while the sales receipts of the institute are increasing. The sales receipts were 76 million forints in 1983 and 82 million forints in 1984 and total production sales receipts of 130 million forints is planned for 1985, depending on the success of their participation in various tenders. (In such a case the subsidiary will be the prime contractor and the factories of the VBKM will make deliveries to the deal.) So it appears that the daughter grew up in a very short time; it now signs various profit interest contracts with the factories of the parent enterprise as a partner with equal rank.

#### The Producer

Having looked over a number of subsidiary enterprises the question arises: When is a subsidiary enterprise really independent? We might hazard the answer to the question that only when it has to look to its own sustenance, when only a part of its orders come from the parent enterprise.

Even in this regard our initial example, the April Fourth Machine Industry Works, keeps a strong hand on its subsidiary enterprises. We can read in the founding resolution for the Hidroplasztik subsidiary enterprise headquartered in Nagykanizsa:

"... The subsidiary enterprise must offer to the founder any commercial bid for which the subsidiary cannot offer a worthwhile bid.... The subsidiary enterprise must similarly offer the superfluous capacity in any area.... The enterprise bid must be given precedence in the event that identical conditions exist.... The founder will determine for the subsidiary enterprise the long range goals and the medium range or annual conceptions in harmony with these."

The opposite practice developed for the Medakku subsidiary enterprise of Medicor; it earns what it lives on. The subsidiary, formed on 1 January 1983, previously manufactured primarily zinc silver batteries for a few Medicor products and for the hearing aids manufactured by the Factory For Opticians' Devices.

So it was considered to have quite an alien profile and its profitability as a factory unit was not good. Probably this was the basic motivation for the parent enterprise. But as a subsidiary the situation changed almost immediately; the smaller overhead makes better profitability possible and the small organization developed profitable new products with a very short conversion time. The small enterprise form allowed better incentive wages for the 100 persons working here and a sort of "ownership feeling" of interest to sociologists developed. (For example, the entire area of the subsidiary enterprise is planted with flowers.) In a way similar to Dunatextil the practice introduced here is that a single person does several types of jobs.

Medakku is specialized primarily for manufacture of EKG and EEG sensors, electrodes and respiration sensors. Only 20-22 percent of the production of the subsidiary is sold to Medicor (this includes the joint capitalist export). The parent lays claim to 15 percent of the taxed profit and to 30 percent of the annual profit increment.

They are now producing about 50 percent more than when they got started, while personnel increased by only 15 percent. It is interesting how the subsidiary advertises its new products. Workers from the subsidiary enterprise regularly visit hospitals to offer their products. But they also make use of the service network of Medicor and the instrument makers doing service work take the Medakku prospectuses with them also.

#### Counter Arguments

The subsidiary enterprises visited are developing with a dynamic above all expectations. But the majority of the enterprise leaders--as we could see--have taken a waiting position; there are even those who formulate opposite opinions unambiguously.

The leaders of Caola, for example, argue that although advantages certainly derive from mobilizing the reserves of factories directed on the basis of "plan bargaining" still the disadvantages deriving from the fundamental change in the internal interest system will be preponderant. (At this enterprise the Ministry of Industry wanted the Zalaegerszeg factory unit to become a subsidiary enterprise.) The essence of their argument is that they should negotiate as a large enterprise as long as they can get the tubing needed for creams and deodorants from only one enterprise in the country, the Matravidék Metal Works; and the same problem appears in getting boxes from the Kner Press and small bottles from the Tokod Glass Factory. That is, positions vis-a-vis background industry are judged to be more favorable in the large enterprise form. For the time being their own production is limited not by the receiving capacity of the market but rather by the unsatisfactory supply of the background industry. At the same time the leaders of Caola feel that creating a subsidiary enterprise would cause significant cost increases also, because the presently centralized administration would have to be built up everywhere. In their view real reserves would not be freed because even now there is a possibility for wage development on the basis of the profit being made in the four factories of Caola. This is modified to only a small degree by the internal enterprise rule that each year the factories prepare a production costs reduction plan and the profit thus planned and achieved is counted twice for distribution in wage development. In the event of an organizational modification only the developmental funds would be freed and go to the area of authority of the subsidiaries; while according to the present practice they built Zalaegerszeg from the common fund of the four factories and are now financing the reconstruction at Albert-falu from the common fund also. The research base is maintained jointly also. All these advantages would be lost if subsidiaries were created, and so they do not consider this timely--despite the fact that the vertical link between the four factories is minimal and all of them have a quite pure profile.

The opinion of the director general of the April Fourth Machine Industry Works is opposed to this line of argument. According to him in a large enterprise model made up of subsidiary enterprises the parent enterprise seems suitable for becoming in time a sort of assets ownership organization. The beginnings are promising from the viewpoint that in this organizational solution the capital ownership and operating functions are separated.

Whether the ice is broken and whether there will be more than the present 28 daughters--the coming years will give the answer to this question. A more worthy question is what sort of independence the future subsidiary enterprises can have.

The subsidiary enterprises of parent enterprises belonging under the supervision of the Ministry of Industry as of 31 March 1984:

STRUKTURA Organizational Enterprise--the Borsod Organizational Further Training and Rationalizing Subsidiary Enterprise

STRUKTURA Organizational Enterprise--the Machine and Equipment Labor Protection Ranking Subsidiary Enterprise

INNOVATEXT Research and Development Enterprise--the COMPUTEXT Textile Industry Instruments and Computer Technology Development Subsidiary Enterprise

Fine Cloth Enterprise--the Dunatextile Commercial Subsidiary Enterprise

Fine Cloth Enterprise--the Oktan Transport and Vehicle Repair and Maintenance Subsidiary Enterprise

FEG Weapons and Gas Apparatus Factory--the FEG Gas Apparatus Repair and Service Subsidiary Enterprise

BUDAFLAX Linen Spinning and Weaving Industry Enterprise--the FLEX-MEN Consulting Subsidiary Enterprise

GANZ-MAVAG--the Ganz-MAVAG Construction, Assembly and Service Subsidiary Enterprise

GELKA--the GELKADAT Organizational, Computer Technology and Innovation Subsidiary Enterprise

Machine Industry Technology Institute--the Technical Development Subsidiary Enterprise of the Machine Industry Technology Institute

Factory For Opticians' Devices--the GRANVISUS Special Machine and Tool Making Subsidiary Enterprise of the Factory For Opticians' Devices

SYSTEM Organizational Enterprise--the Background Industry Information Organization Office

Information Technology Enterprise--the Bekes-Szolnok County Subsidiary Enterprise of the Information Technology Enterprise

Light Industry Machine Manufacturing Enterprise--the KEEV Clothing Industry Tools of Production Commercial Subsidiary Enterprise

Light Industry Machine Manufacturing Enterprise--the KEAV Machine Industry Development Subsidiary Enterprise

Hemp Spinning and Weaving Industry Enterprise--Hemp Machine, the Parts Manufacturing and Assembly Subsidiary Enterprise of the Hemp Spinning and Weaving Industry Enterprise

MEDICOR--the MEDAKKU Subsidiary Enterprise of MEDICOR

MIKI Measurement Technology Development Enterprise--the MIKI Measurement Technology Software Development Subsidiary Enterprise

Laboratory Instrument Industry Works--the MIM-EL Electronic Subsidiary Enterprise

National Petroleum and Gas Industry Trust--the OKGT Material Supply Subsidiary Enterprise

Foundry Enterprise--the Forming Materials Manufacturing Subsidiary Enterprise of the Foundry Enterprise

Prometheus Heating Technology Enterprise--the Prometheus Energotechnics Subsidiary Enterprise

RABATEXT Gyor Textile Industry Enterprise--the RABATEXT Service Subsidiary Enterprise

SZIM Machine Tool Industry Works--the SZIM Machine Tool Leasing Subsidiary Enterprise

Iron Industry Research Institute--the VASKUT-MUFIL Technical Translation and Innovation Subsidiary Enterprise

Electric Equipment and Electronics Enterprise--the VBKM Heavy Current Product and System Development Subsidiary Enterprise

Danube Iron Works--the Lorinc Rolling Works

Red October Men's Clothing Factory--the VORG Development-Organizational-Service Subsidiary Enterprise.

8984

CSO: 2500/106

DIFFERENT PERCEPTIONS OF ADVISORY GROUP DEBATE ON REFORM

ZYCIE WARSZAWY Staff Report

Warsaw ZYCIE WARSZAWY in Polish 9 Nov 84 pp 1, 6

[Text] The discussion on reports under consideration became heated during the 8 November session of the Economic Advisory Council [KRG] chaired by Prof Czeslaw Bobrowski.

The reason was both the very painful nature of the material, especially the artificial evaluation of the functioning of the economy, its condition, and prospects, as well as the point of view regarding the conclusions.

The study itself represents a certain antireport to the recently universally discussed report on the progress and results of reform. However, the Economic Advisory Council's approach was different, since there was less emphasis on the official aspects, yet there was more emphasis on the degree and success of implementation of the mechanisms. The first two parts of the study, which have already been published in ZYCIE GOSPODARCZE, do not evoke any opposition; however, they do concern diagnosis. The meeting presented the modest level of choice available to the enterprises, and the limited degree to which economic parameters influence the decisions undertaken. Prices, FAZ [Professional Activation Fund] liabilities, income tax, and credits were submitted to a very critical analysis.

The discussion of the third part evoked the most controversy, with regard to the guiding principles and proposals. Since Prof Waclaw Wilczynski was unable to attend the session, prior to the deliberations the participants received a copy of his comments, where were highly critical of the report. Although he fully appreciated the educational and conceptual value of the text, he determined that he could not accept its overly mild tone, incommensurate with the tragic situation in which our economy finds itself.

Prof Czeslaw Bobrowski stated that the differences in viewpoint do not so much concern the merits but rather the tone of the report. Prof Tadeusz Sztucki, however, observed the need for decisive support for a pro-market orientation, and also determined that the report discussed should concern itself in a more unequivocal manner with the "road to reform," since otherwise the reform will be in danger of failing.

The discussion concentrated on the fulfillment of some proposals and on the acceptance of the tragic situation. The general conclusion of the report, figuratively speaking, is that one cannot see the forest for the trees. In other words, in shaping the solutions it is not enough to concentrate on that which is taking place in specific areas and fields; there is rather a need for constant concern about linking all the fragmentary solutions into one. From this point of view, the report reveals the obstacles facing reform success and also demonstrates to what degree the compromise solutions created by these obstacles can contribute to weakening or even causing regression of the reform.

In part, the report proves that various temporary substitute solutions are being created because of the fear of ineffectual self-regulation through economic mechanisms or to counteract problems that could occur. As a result, however, not only is there restriction of self-regulation, which Prof Pajestka has called a condition of enterprise independence, but also the total exclusion of these mechanisms on a broader scale.

This is an important matter. Either we will strive to remove the obstacles, or we will give up our aspirations, and the proposals for reconstruction of the economic system will be impaired. Upon realizing the weaknesses and limited capabilities of the market mechanism, we should try to implement it and try to make additional arrangements (those which bring about structural changes, correct distribution results, etc.), or to implement other numerous and broadly disseminated safeguards beforehand so that the mechanism can be thwarted immediately.

Or we will try to apply objective tools, or reconcile ourselves to prescribed methods and approved interpretations of regulations. However, this leads to the criticized aspects of so-called river piloting, and in Prof Jozef Soldaczuk's words represents an outright threat to the reform.

The discussion centered chiefly around the future. Treating this report as a warning, the participants realized that a more specific form of the "road to reform" plan would have to be presented for the new model. However, if the appropriate tools were not introduced in due course there would be a danger of the use of the old and accessible prescribed tools. As Prof Bobrowski noted, the formulation of the "road to reform" plan represents a very important matter which is at the same time a very difficult one. The obvious impression was that the Economic Advisory Council felt obligated to undertake this task.

Szwarc for ZYCIE GOSPODARCZE

Warsaw ZYCIE GOSPODARCZE in Polish No 47, 18 Nov 84 p 2

[Article by Karol Szwarc]

[Text] The 8 November 1984 plenary session of the Economic Advisory Council was dedicated to the final drafting of the third part of the reform report (we will publish the text in the current issue--the first two were published

in the two previous issues of ZYCIE GOSPODARCZE). The discussion was similar to that of the first two parts of the report, concerning the diagnosis of the operational status of the economy as well as an exchange of opinions on the direction of proposals representing the opportunity for the presentation of individual views concerning the future of the reform.

Prof Czeslaw Bobrowski initially determined that economic progress will be largely dependent upon the manner in which issues relating to the Central Annual Plan mechanism are going to be settled for 1985.

In his opinion, there is a continued danger that the number of regulations of a "river piloting" nature will increase. Therefore, in the near future the KRG intends to express its opinion on issues concerning the structure of the 1985 plan, independently of the reform report.

The KRG chairman then reported that since Prof Waclaw Wilczynski was unable to attend the meeting, he had sent a letter in which he had indicated that the KRG report had not dramatized the situation and prospects sufficiently. In his opinion, only dramatization would prevent failure of the reform.

This position was supported by Prof Tadeusz Sztucki, who noted that the long-term "road to reform" concept was synonymous with "reform failure." In the initial stages of reform it was said that reform had to be implemented in order to prevent the crisis, inflation, and market disequilibrium. Today the argument is that this is not the way to continue reform in its more complete form, because the crisis, inflation, and market disequilibrium will impede reform. Therefore, it is necessary to formulate a quickly planned and organized program for transition to a market economy.

However, the continued exchange of opinions did not proceed along these lines, but rather along the lines presented in the DRG report. In any case, this was my understanding and also that of the majority of the participants. On the other hand, the ZYCIE WARSZAWY reporter belonged to the minority and he understood and reported it differently to his readers.

The speech by Prof Krzysztof Porwit, who believed that the "road to reform" is necessary within the scope of the operation of the economy, defined the precise terms of the continued line of discussion. However, he determined that we are not yet fully prepared to present such a scenario. This view was supported by other participants, including Prof Urszula Wojciechowski, Prof Jozef Soldaczuk, Prof Mieczyslaw Lesz, and Dr Stefan Jedrychowski. K. Porwit believes that urgency is not warranted in this matter. The rapid implementation of market mechanisms not prepared in an appropriate manner could cause many problems which would have to be corrected later. Therefore, it is best to avoid this and perhaps continue at a slower pace, thereby not causing any serious problems concerning the ultimate solutions. This issue is all the more important in that we should not break away from the socioeconomic policy in order to modify the economy's operation.

In Prof Jozef Pajestka's opinion, the question of whether we are at cross purposes is a question which will have to be worked on for quite a while

longer. At the present time, dramatization has its purpose because of public opinion. In the opinion of the majority of the public, progress within the scope of the reform is insignificant. Prof Jozef Pajestka acknowledged that the KRG report was valid, and at best we can reflect upon its tone.

J. Pajestka also called attention to the fact that our economy needs a policy of active structural modification, chiefly through the use of diverse methods. On the other hand, this issue has disappeared from view because of the formulation of the reform concept. In his opinion, the structural changes must, above all, originate with the enterprises. As a result, the emphasis on enterprise investments contained in the KRG report is very important. The need for central verification of old investment programs was raised repeatedly by the other participants. It is a well-known fact that verification never took place completely, simply because it could not. None of the central authorities has been able to achieve this. As a result, some say that a system of accumulation redistribution of the capital market should be established. This represents a fundamental supplement to the thesis concerning specific emphasis upon enterprise investments. If we discuss the "road to reform," then it is precisely during its development that this matter comes to the fore.

Consequently, the discussion centered on the need to formulate and implement substantial modifications in the economy's operation. An unquestionably positive result of this exchange of views included not only the strengthening of certain theses, but above all the development of the view that the most important question currently concerns the outlining of the "road to reform" concept for final solution. The KRG accepted the responsibility to participate in the development of just such a scenario.

12229  
CSO: 2600/208

LABOR MINISTER ON GOVERNMENT SOCIAL, WAGE POLICIES

PM121023 Bydgoszcz GAZETA POMORSKA in Polish 21 Nov 84 p 4

[Interview with Minister of Labor, Wages and Social Affairs Stanislaw Gebala by KAR correspondent Irene Scholl; date, place not given]

[Text] [Scholl] The 17th PZPR Central Committee Plenum affirmed that all essential economic and social problems should be resolved with the participation of the broadest possible spectrum of the public, and that the opinion and will of the working people, especially the working class, must influence decisions made by the government and its bodies. Is that, in fact, the actual practice, for example in an area as important as social policy?

[Gebala] I believe it is, although this particular area is, as it happens, the most difficult when it comes to accommodating every aspiration and meeting every expectation, mainly because there are so many of them, while our capacity for their realization is determined by the scale of the means we manage to put together. Another reason is that sometimes people have differing views on many questions, expressing the conflicting viewpoints or interests of different groups, even within the confines of one class. For these reasons the competition between various social policy objectives is enormous, and making choices is tremendously complicated since, in point of fact, all those objectives are important!

[Scholl] Has the voice of the workers, so forcefully expressed in the August agreements and in the ninth party congress resolution, exerted any significant influence over the directions of our social policy?

[Gebala] It has had a decisive influence. In the difficult economic situation, with a dramatic fall in the national income and its inevitable consequence--a fall in the population's living standards--changes have been made in the structure of national income distribution. The share of fixed capital formation, mainly investment project funding, has been reduced from more than 31 percent in 1978, through 9.9 percent in 1981, to 26 percent in 1982.

The economically weakest social groups have been given protection: More funds have been allocated for assisting families with the lowest incomes, with families with many children, mothers bringing up children on their own, and so on. These were both emergency and regular policy schemes. Among other

things, reforms of the old-age and disability pension scheme as well as the child benefit scheme have been carried out; a new benefit for mothers bringing up young children has been introduced; and compensatory allowances have been brought in to ease the effect of rising living costs.

Widening the range of social welfare benefits has caused a considerable rise in outlays earmarked for this purpose in the national income. While in 1980 their share amounted to 19.9 percent, in 1983 it rose to 22.4 percent. They will continue to grow, too, since the proportion of people of pre- and post-production age is increasing rapidly.

The share of social welfare benefits in the financial incomes of the population rose from 12 percent in 1981 to 18 percent in 1982, while the share accounted for by pay reduced from 54.6 to 48.3 percent.

[Scholl] And it was precisely in connection with this that doubts began to arise. They were expressed most emphatically by one of the workers--I think it was at the 16th Plenum--who said: "It is more profitable today to have children than to do one's job effectively." Thus we already note the discrepancy, the "conflicting viewpoint" which you have spoken of.

[Gebala] Aiming to creating a social welfare protection system for those population groups which find themselves in a particularly difficult situation has brought about a certain undesirable phenomenon: excessive equalization of the incomes of different population groups has seriously weakened the motivational functions of wages.

As a result of compensatory allowances for people with dependents, family size became a decisive factor which influenced the sum total of people's incomes to a greater extent than previously.

Thus the government was faced with the necessity of simultaneously realizing objectives that were partly incompatible. On the one hand, perfecting the motivational function of wages and tying it more closely to increases in the rate of production and productivity calls for a bolder differentiation of wages. On the other hand, aiming at giving social welfare protection to those population groups which, through no fault of their own, find themselves in a difficult economic situation limits the resources for creating incentives for more efficient work.

[Scholl] What, then, is the solution?

[Gebala] To apply the kind of wage system which seeks the means for wage increases in the results of good economic management and initiative on the part of enterprises. And we are right now introducing such a system. It is, in our opinion, consistent with the ideals of social justice which say: "To each according to his work," and with the spirit of the reform which we are committed to implement both by the social agreements and the ninth congress.

[Scholl] But there is a provision which figures both in the agreements and in the ninth congress resolution and is nevertheless absent from our public life. I am thinking of the issue of the minimum subsistence level.

[Gebala] The category of the minimum subsistence level must nowadays be viewed in the perspective of the targets set for us by the economic reform and the opportunities created by the reform for employees and their families to improve their own living standards. To give the minimum subsistence level the character of a normative category would in practice mean that a certain category of persons--even those capable of working--could live without taking up employment, even if their living standards were quite low.

The need to foster authentic respect for work continues to win increasing numbers of supporters, among workers too--as was evident from the 16th plenum debates. The need for everybody to realize that the living standard of each individual, of each family, depends primarily on their own contribution as regards work, active involvement, and professional usefulness. It must be emphasized that the state creates favorable conditions for active professional involvement, but the utilization of these is still up to the employee. In addition, opportunities are being considerably extended for people to draw their pension or child benefit and at the same time continue in their job, insofar as society needs their work and as their health and family situation will allow. It is only in cases of misfortune that one can and should expect assistance from society.

We have not abandoned the standard of the minimum subsistence level. It is calculated regularly by the labor and social affairs institute and it serves as a comparative criterion for assessing the living standards of the population. It must be realized, however, that in the present situation the usefulness of the minimum subsistence level as a guide determining social policy is extremely doubtful. We would have to calculate the cost of the essential services and the "shopping basket" for several dozen, if not several hundred social groups. For the cost of living, the typical expenditure, and the needs vary not only between persons employed in the socialized economy but also between farmers, peasant-workers, and old-age and invalidity pensioners. All that has to be calculated differently when we take into consideration the various benefits in kind and other privileges available to employees of particular industries and the various schemes facilitating the purchase of certain goods. There are differences between the purchasing needs and opportunities of the inhabitants of industrial [word indistinct] and those who live in small towns, between do-it-yourself experts capable of carrying out every household repair and those who have to pay for all such services. There are also differences between the "wheeler-dealers" and those who pay through the nose, having to buy from speculators. The situation of an old-age pensioner living in a large family is different from that of one living on his own, and different still from that of one who has access to various forms of assistance. Official incomes are sometimes a far cry from actual incomes.

[School] What are the proposals put forward by the trade unions regarding questions of social policy?

[Gebala] The trade unionists' proposals, submitted at meetings with government representatives, for example those at the "Baildon" and "Nowotko" plants and also those put forward in the course of the debate on the 1985 annual plan, were mostly concerned with social welfare questions. On the one hand the trade unionists expressed their fears lest the living standards of the working people

fall any further, considering the difficulties with curbing inflation. On the other hand, individual interests of various groups of employees were voiced, with their representatives demanding new forms of preferential treatment and further privileges. All these proposals were analyzed thoroughly by the government, and a number of operations have been undertaken to realize them--depending on their social justification and the economic realities.

[Scholl] Over what question is the "official list of differences" between the government and the trade unions the most extensive?

[Gebala] A most sensitive question, and one that causes dissent within the working class, is that of benefits in kind and other job-related prerequisites. These are, alongside regular salaries and wages, the basic subject of individual industries' collective work agreements. As we know, benefits in kind and other prerequisites available to employees of particular industries were "frozen" until the end of 1985 by the terms of the 21 July 1983 act. At the same time I should like to stress that we do not anticipate any changes in this situation to make us endorse an extension or development of that type of industry-related prerequisite--although proposals made by some unions point in that direction.

[Scholl] Such a policy would be contrary to the principle of payment according to work results.

[Gebala] Precisely. After all, the pay situation is changing. Enterprises are setting up their own wage systems, reserving the right to depart from the provisions of the collective work agreements and also from certain regulations of the labor code. Moreover, the 26 July 1984 act on enterprises' own remuneration systems encourages enterprises—I say encourages, not forces--to relinquish various kinds of benefits in kind and similar privileges and to earmark these means for increasing people's wages in return for concrete, tangible work results.

[Scholl] Thus a new and controversial question is beginning to emerge--a question which must be solved in cooperation with the unions: What should be the role of individual industries' collective work agreements?

[Gebala] The number of problems and question marks connected with this issue is much larger. Should such agreements be negotiated by the relevant minister if he has no means for pay benefits at his disposal. Who should negotiate an agreement on behalf of the employees if there are several federations active within the given sector of the economy? Given the principle of enterprise autonomy and self-financing, should enterprises be automatically bound--as they were previously--by the terms of the agreements, or should they enjoy the right to make their own decisions as to whether they will accept the agreement in its entirety or only in parts? What control should be exercised by the central authorities to prevent further unrestrained differentiation of prerequisites available to employees of particular industries--a differentiation contrary to the fundamental tenets of the state's economic and social policy?

I am discussing collective agreements in such detail to demonstrate how many actual problems there are to be considered and solved in every issue which is being consulted with the trade unions. But the trouble taken over this will yield hundredfold dividends. The larger the number of problems discussed, and the more we discuss them in a wide forum, the fewer mistakes we will make.

[Scholl] Thank you for the interview.

POLAND

WARSAW PZPR GRADED ON CONTRIBUTIONS TO ECONOMIC REFORM

AU171247 Warsaw TRYBUNA LUDU in Polish 14 Dec 84 p 5

[Report by Andrzej Lawniczak: "The Plenum of the PZPR Committee in Warsaw"]

[Excerpts] The Warsaw party echelon devoted its 13 December plenum to the effectiveness of political influence on economic processes. The plenum, which was chaired by Marian Wozniak, PZPR Politburo member and first secretary of the PZPR Committee in Warsaw, was attended by PZPR Politburo member Albin Siwak; Wladyslaw Baka, government plenipotentiary for the economic reform; and Edward Lukosz, deputy chairman of the Planning Commission.

This was the second time this year that the Warsaw party plenum took a direct interest in the problems of Warsaw and Warsaw Voivodship. Last March it had discussed the most important problems of industry and yesterday it paid its main attention to the issue of how the party makes its impact on the economy, whether it is in charge of economic changes, and whether its influence on the implementation of the economic reform is sufficiently effective.

It was inevitable that the plenum's main attention was given to the economic reform. Warsaw Voivodship Committee Secretary Janusz Patorski read a report on the results of the third-year implementation of the economic reform in Warsaw Voivodship.

The positive results of this implementation include increased industrial production and greatly increased productivity compared with 1979; an increase in the production of consumer goods in excesses of the plan and an increase of this production in the structure of overall production; and a considerable reduction in the unfavorable gap between the increases in average wages and the increases in productivity, compared with 1983.

The negative results of this implementation include the failure of over 20 metallurgical and engineering enterprises to achieve the level of 1979 production; the failure of 23 out of the 77 largest exporting plants to achieve the level of 1983 exports; the drop of over 20 percent in exports to the capitalist countries; a decrease in the number of production workers; the deterioration of the exploitation of working time; and the fact that quality indexes have deteriorated in 20 percent of enterprises.

This means that the 3-year plan will have been implemented insofar as the basic indexes are concerned, but that effectiveness is often below public expectations.

The plenum adopted a resolution, which states among other things that the present production results make it possible to fulfill or even overfulfill the annual industrial tasks.

In order to implement the 1985 tasks and to successfully implement the 1983-85 plan it is necessary to formulate a strategic economic policy for Warsaw Voivodship's socioeconomic development up to 1990 and up to 2000; to comprehensively evaluate all production enterprises on the strength of the information supplied by the Main Statistical Office and the banks; to begin a comprehensive modernization of Warsaw industries; and to stipulate a system of priorities in the development of the individual sectors of the voivodship's economy.

The plenum of the Warsaw Committee decided that it is necessary for the Warsaw People's Council and the economic department of the Warsaw Committee to implement the decisions on restructuring Warsaw industries and the economy. These decisions were made by the Government Presidium last September.

CSO: 2600/364

POLAND

U.N. OFFICIAL RATES EAST-WEST TRADE PROSPECTS

AU171513 Warsaw TRYBUNA LUDU in Polish 14 Dec 84 p 6

[Interview with Klaus A. Sahlgren, executive secretary of the UN European Economic Commission, by Krystyna Szelestowska: "East-West Economic Cooperation"--Warsaw, date not given]

[Excerpts] Szelestowska: What do you think of the prospects of East-West economic relations during the current political conditions?

Sahlgren: Indeed we are faced with difficult political conditions. But fortunately one can see signs of improvement in East-West relations. As far as economic cooperation is concerned, this cooperation has suffered for political reasons. It has not developed as much as it could have done because of the obstacles and restrictions imposed on it, and also because of a lack of initiative. However, I prefer to talk about what this cooperation may be instead of what it has not yet become. I deeply believe that there are considerable possibilities for developing it, but there are two conditions. First, the general political climate must be improved (and there are prerequisites for this), which will have a favorable influence on trade; and second, there must be an economic revival, which may also favorably influence East-West trade. I said during my lecture at the Main School of Planning and Statistics in Warsaw that I recommend that Western governments loosen their financial policy, which can now be done without the risk of a new inflation spiral. This would help overcome the great unemployment, especially among young people. It would also serve to animate economic activity, from which East-West trade would profit.

Therefore, I see two prerequisites for the development of economic cooperation in Europe; a political one and an economic one. Next we will be involved in negotiating ways of eliminating the existing barriers. I am less optimistic in this matter. I regard new technology, for example connected with environmental protection, as a chance for developing East-West cooperation. Biotechnology and new materials are other innovations. Therefore if the European governments and trade circles avail themselves of the already existing and brand new partnership possibilities, I am optimistic.

Szelestowska: How do you assess the role of the European Economic Commission in animating East-West economic cooperation?

Sahlgren: The Commission is most of all a forum for those governments that wish to discuss their problems multilaterally and try to solve or ease these problems together. It would be an exaggeration to say that the Commission plays

a greater role at times when bilateral channels are not functioning normally. We have a lot to do, and many new activities are waiting to be started.

Szelestowska: You must know the extent of the losses Poland and our society have suffered because of the restrictions applied by the United States and some of Washington's allies. What possibilities do you see in the Commission protecting economic cooperation against pressure and restrictions of a political nature?

Salhgren: There are situations where I do not like speaking in public for or against certain member countries of the Commission, because that would be a violation of my status. I try to influence governments not to introduce political elements into the Commission's work, because the Commission's purpose is economic cooperation. I understand your anxiety well. I have spoken about this in Warsaw.

Szelestowska: How do you assess Poland's role in the Commission?

Salhgren: Poland was the joint founder of the Commission, a fact which is of great significance. It has henceforth played a great role, and is also doing so at present. I can give many examples of traditional energetic activity, for example the Coal Committee, which was visited by Minister C. Piotrowski who gave a lecture, and which is chaired by Deputy Minister E. Ciszak. There are several Poles in the Commission's Secretariat, including the head of the coal department. Poland plays a competent part in practically all spheres of the Commission's activity. Many seminars are organized in Poland. I have a long list of seminars planned to take place in your country in 1985 and 1986. Poland also takes an active part in the UN development programs that are being performed by the Commission, especially in the construction of the Transeuropean North-South Highway, whose administrative offices are in Warsaw. I am an optimist as far as Poland's future participation in the Commission's work is concerned, from which it stems that one must not sit with folded arms, but be energetic.

East-West trade and cooperation have to be cared for. They require efforts at various levels--by government and international circles, trade communities, and working people. In Finland we say that salmon is such a valuable fish that it ought to be fished for, even when it cannot always be caught on a line. I believe in the great influence of trade on international relations. People used to say that detente stimulates trade. Now some say that the time has come for trade to settle its debt and positively influence detente. This is a kind of mercantile philosophy in which I believe. There is already a network of trade connections between persons, governments, and states in Europe. It is already strong enough to withstand political tension. This is something in the nature of a security network which may play a positive role every day. We must not forget that we are mutually dependent on each other in Europe.

CSO: 2600/364

POLAND

POLITBURO MEMBER VIEWS CONDITION OF COAL MINING INDUSTRY

PMI 71448 Bydgoszcz GAZETA POMORSKA in Polish 3 Dec 84 p 3

[Interview with Jerzy Romanik, PZPR Central Committee Politburo member, by INTERPRESS correspondent Janusz Atlas; date, place not given]

[Text] [Atlas] There is general public belief that the overcoming of the economic crisis is to be credited above all to the efficient work of our coal mining industry. That belief is, however, accompanied by a reflection of a different kind: Are the costs not too high? I am thinking here of the danger to the miners' life and health, of the not always rational methods of making use of our resources, and also of the damaging consequences of the coal boom for the natural environment.

[Romanik] But what other way out of this situation have we got? The costs are indeed high, sometimes even too high. The alternative solution of /CLOSING THE PITS/ [words between slantlines capitalized] is unacceptable. Hard coal is the basis of our national economy. We are left facing the hard work of bringing the costs down.

Let us begin with health and safety at work. I should like to stress that miners' safety and health are the most important questions for the ministry, for the political and social organizations active in that sector, and, in fact, for all those employed in the mining industry.

A program of tasks aiming at a further improvement of safety and working conditions in hard coal mines for the years 1983-1990 is being implemented with great consistency. It came into being as a result of the decisions of the PZPR Central Committee Secretariat of 15 January 1983 and the resolutions of the Council of Ministers. The State Mining Council has issued a statement on the subject.

The accident rate in the Polish mining industry is declining from one year to the next and remains among the lowest in the world. The decline in the incidence of occupational diseases is considerable. The public are most easily appalled by tragic accidents which involve numbers of casualties. The worst thing is that mining disasters are usually caused by unpredictable natural factors. The greatest efforts made by science and technology have not as yet been successful in winning the battle with nature. But no one is giving up.

Rationally utilizing our resources and reducing production and nonproduction losses, are in turn, our fundamental duties toward future generations of Polish people. I do not wish to go to great lengths over this complex problem, which is certainly not treated in a marginal way, but to my way of thinking we must search for other sources of energy. I am thinking first and foremost about the nuclear energy industry as our immediate future. And that is what we are doing.

Unfortunately, I cannot say many positive things about the results of the struggle against the harmful effects of miners' labor on the natural environment. People who live in Silesia and the [Coal] Basin can see those effects for themselves in their daily lives. Pipes break, cracks develop in walls, buildings cave in--whole towns cave in, in fact, as in the case of Bytom. Damage caused by mining is a major obstacle to the development of housing construction. The considerable financial and material means earmarked each year by the Ministry of Mining for preventive action, repair of damage, recultivation of land, and protection of surface waters are just a drop in the ocean of our needs. The areas of neglect have been accumulating for many years. The government tries to help as much as it can, and so do the authorities at voivodship level. The technology of extraction and of rendering safe the excavated areas is being continuously perfected. The natural environment is also ruined by the heavy industry which is concentrated in Katowice Voivodship. Protection of the natural environment is extremely material-intensive and that, in our present economic situation, is the main obstacle to achieving better results.

[Atlas] Coal is "Polish gold." How much of this wealth have we got? How much coal do we extract per annum and is it a "bottomless well?"

[Romanik] I sometimes think that if we were as poor in natural resources as Japan, or even Hungary, then perhaps life itself would force us Poles to make greater efforts in the right direction.... But I am saying this in jest, and as a remark marginal to your question. Each year we extract over 190 million metric tons of coal. This gives us fourth place in the world list of coal-extracting countries. Poland's coal resources under extraction are estimated by geologists to amount to more than 13 billion metric tons. The "well" is thus quite deep, but there is, of course, a bottom to it. That is why the PZPR Central Committee Mining Commission, which I head, has adopted as its main objective a campaign for economical and rational management of our raw materials, mineral resources, energy resources, and so on. The government is doing it too. However, victories in this campaign are hard, even very hard, to come by.

[Atlas] With regard to my previous question. Could the coal we are extracting not be utilized better? We know that in many areas of our economy too many calories are wasted while at the same time, there are difficulties with buting coal on the market....

[Romanik] Yes, I agree. In May this year the Government Presidium adopted a blueprint for a program for rationalization of the use of fuels and energy up to the year 2000. I think, however, that from the strategic viewpoint we are not going to win that campaign and will remain "a voice in the wilderness" if we in Poland do not manage to depart from the extensive pattern of socioeconomic

development. This is where the problem lies. Here I must add that we can record certain successes thanks to science. Coal gasification techniques; more economical power boiler furnaces; coke chemistry; heat loss reduction, and so on: All these are in operation already and do not remain confined to paper. As to the difficulties with purchasing coal on the market, I simply fail to understand them, and I think they are incomprehensible to every Pole--except perhaps to those who deal with the coal trade. It remains their sweet secret. One might suspect that that secret lies in incorrect work organization.

[Atlas] People know two truths: miners work extremely hard, but their work is profitable. What does this mean? How much does a Polish miner earn and what job-related privileges are available to him? How long do employees of the mining industry have to wait for an apartment, what proportion of them are car owners, what possibilities are open to them for medical treatment and recreation?

[Romanik] This question belongs to our own contemporary Polish myth-making. Just imagine: Our miners would be earning less than the average monthly pay in Polish industry if they did not work on Saturdays and Sundays! Out of courtesy I will say nothing about the better-paid professions in Poland. In my opinion there is no need to give privileged treatment to miners or to any other vocational groups. It is against the principle of socialist social justice and it divides the working class. Preferentiality should be expressed in the first place in their basic pay. And in a well-supplied market, so that they can spend their earnings according to their needs, without seeking the prerequisites. Miners wait for apartments, too. At present the average waiting time is some 5 to 7 years. Workers' hostels belonging to the mining sector currently accommodate 45,000 persons. This should be enough to shatter all these contemporary myths.

As regards access to medical treatment and recreational opportunities, miners are not getting any preferential treatment here either. There is, for instance, a serious shortage of places in sanatoriums. Health care facilities are insufficient. These are hard facts. The health care system caters for some 630,000 persons. It needs pointing out that its facilities are not closed to citizens who are not connected with the mining industry.

A considerable proportion of miners are car owners, but I do not think this is the right way of looking at the question. It is as if you were asking about the proportion of sportsmen who are car owners and whether that is just and fair. When it comes to the number of employees per place on workers' holiday schemes, the coal mining industry ranks only eighth in the country.

[Atlas] A question of a personal nature. Everyone knows that miners--nearly all miners--are keen sports fans, keen hobbyists, that we can speak of the existence of workers' culture in that milieu. As a miner, who do you support, comrade, and what are your hobbies?

[Romanik] I am a soccer fan. But I only like high quality football. Apart from that, I like books. I have no particular hobbies.

[Atlas] Thank you for this much-needed interview.

MANTEUFFEL DISCUSSES AGRICULTURAL, RURAL PROBLEMS

Warsaw ITD in Polish No 46, 11 Nov 84 pp 16-17

[Waclaw Opacki interview with Prof Ryszard Manteuffel, agricultural economist: "The Rich and the Poor"]

[Text] Opacki: Are the problems of the countryside indeed desperate today?

Manteuffel: No. However, you will need to introduce a correction into my statement on account of my incorrigible optimism.

Opacki: Were there times in the past 30 years when you caved in, when your faith was giving in?

Manteuffel: No, I knew that things were bad, but I also knew that they would get better.

Opacki: Which period in postwar Polish history was particularly bad in your opinion?

Manteuffel: The years 1949-53, when the doctrinal-ideological pressure on people was especially strong and came down on them suddenly and unexpectedly.

Opacki: Yet that period also had some positives, did it not?

Manteuffel: Well, yes. At that time there was a great enthusiasm for action and a willingness to create something new. I am an enthusiast of work. Every year I marched in May Day parades, which then were truly authentic. I remember the mood among my colleagues from the Institute of Agricultural Economy: optimism, joy and gayety, and a willingness to act that derived not just from youth. We went to build the Tenth Anniversary Stadium without any prompting or coercion, but with great enthusiasm and a belief in the justness of the goal...

Opacki: You are recalling it with certain affection. Why?

Manteuffel: Because this mood for action is now almost totally gone, and in its place is reflection: "Is it worth it?" "What for?" "Why do it?" This awful, terrifying passivity is, for me, the most distressing picture of

today's reality. Back in those times life was very grim in the countryside. Let us hope it will never be so again.

Opacki: On what, then, do you base your optimism?

Manteuffel: On the knowledge of history. The Poland of the 50's and of the 80's--they are two different countries and worlds. Today we have a completely different level of agriculture and material production. Completely different farming and different farmers. The progress is visible.

Opacki: Nevertheless, the distance between us and highly developed countries remains the same or has even increased.

Manteuffel: There is a difference of 20-30 years, but I believe that the difference between, for example, the levels of production is the same. Please note, however, that we started from completely different levels. Our country was recovering from authentic ravages of war. I see this development independently of the statistical picture. Only 10 years ago one who said that grain crops could exceed 30 quintals, and in the case of some types of grain, even 70 quintals, would have been considered crazy.

Opacki: Why, then, are there such uncertainties in farmers' attitudes and production results?

Manteuffel: It is the result of the farmers' lack of faith in the truthfulness of the formal guarantees given by the authorities. They have to start believing the authorities' sincerity and honesty and not pay attention to the comments, spiteful remarks and views of people who do not desire the prosperity of this Poland. In any case, such people are on both sides of the barricade.

Opacki: Could you point them out?

Manteuffel: They are the hardliners and people from the political opposition.

Opacki: What about your conviction?

Manteuffel: I have very few contacts with the state and political authorities. Nonetheless, I very much want to believe their honesty. I think they know what they are doing. Farmers make a big mistake when they convince each other that many of the authorities' declarations are not put into effect.

Opacki: There is progress, then, but not as great as there ought to be with regard to the possibilities.

Manteuffel: I know the length and breadth of Poland and I am not blind, I can see the shortcomings...

Opacki: Ten years ago there was no rationing. Today it is our nightmare. Isn't this an evident regress?

Manteuffel: Rationing has nothing to do with agriculture. Agricultural production is at its highest level in postwar Poland.

Opacki: What, then, does the rationing attest to?

Manteuffel: We have been cut off from, among other things, imports and raw materials needed for production.

Opacki: Perhaps we also cannot process our production.

Manteuffel: That is it. We waste terribly and in enormous amounts. The blame lies also in people's appetites, in the recent starvation panic...

Opacki: Was it really fictitious?

Manteuffel: Of course. There was no starvation in the years 1980-81. I will even say that per capita meat consumption was the highest in postwar years. Without the possibility of spending money on other things, people were buying out food. My family did it too and was stocking up. Some of the grains and flour later had to be turned over to other purposes.

Opacki: People alone cannot be blamed for the history of that time, the results of which we still see today.

Manteuffel: I agree. After 1960, there was an insane propaganda for increased consumption, the size of which per capita was to match that of the United States.

Opacki: As a professor, how would you define your personal influence on the mistakes in the agricultural policy of the past dozen or so years, through, let us say, expert reports?

Manteuffel: I wrote no expert reports. I know of no references to my statements by the decisionmakers. Only the "Poland 2000" PAN [Polish Academy of Sciences] Committee asked me 2 years ago to direct the work on an experts' report on the forecasting of the development of agriculture in Poland. This report has not been formally confirmed, although I already often refer to it. I did not make any other expert appraisements.

Opacki: Did you commit other "sins" in the 70's?

Manteuffel: I do not admit any.

Opacki: Perhaps, however, your views on agriculture have changed in the past dozen or so years?

Manteuffel: After 1949 it seemed that Poland was going in the direction of collective agriculture. Everybody spoke about liquidating the private sector in the future. Until 1956 I did not occupy myself with that sector because, among other things, I believed in the fulfillment of those plans. Only later, under social pressure, our authorities recognized the existence of the private sector, and therefore I took a greater interest in it beside the state sector.

Opacki: You did not concern yourself with farming co-ops at all?

Manteuffel: No, although I believe that co-ops based on healthy principles and economic incentives are a valuable form of management. The co-ops which were created then, however, were a negation of those principles and were based on a falsely interpreted doctrine.

Opacki: Did you believe in the 70's in the great economic organizations?

Manteuffel: On the contrary. I have the satisfaction of having made a small contribution to the eventual defeat of that craze for the gigantic, which for a long time was held against me; I achieved it, however, less by scientific research and more through textbooks and publications.

Opacki: Nevertheless, in the 70's the craze for the gigantic was a fact. What did it stem from?

Manteuffel: In Poland it stemmed from ignorance. The decisionmakers did not comprehend the concept of the economy of the scale. They knew only that "bigger" was better than "smaller." Madness and insanity: agricultural combines with, as a rule, a minimum of 30,000 hectares were created, which resulted in enormous losses in production, ruined the fertility of the soil, and brought disastrous financial results. Now a complete, or at least limited economic calculus has been introduced in agricultural enterprises and we can talk about some kind of sense.

Opacki: What then are the current ills of the Polish countryside and agriculture?

Manteuffel: I always start with human beings. The greatest ill is the aforementioned lack of faith in the permanence of private agriculture. There is a lack of implementation of the fundamental principle of effective management, formulated already by Juliusz Poniatowski: the unity of thought and hand. Family farming has this enormous advantage over farming based on hired labor that the decisionmaker, the farmer himself, implements his decisions and is paid exclusively by the products of his hand. There is no detachment, therefore, of decision from execution.

Opacki: Are you saying that in state farms the situation is different, namely, worse again?

Manteuffel: The employees of state farms receive wages almost unrelated to the results of their work. Only now we are pushing for some form of dividing the income and not the profit in state farms as well. Employees ought to be paid in relation to the results of management. I do not know whether this will take root.

Opacki: What is another ill of the Polish countryside?

Manteuffel: An insufficient amount and a poor quality of the means of production, which the farmer either does not have, or has an insufficient amount of. The simplest parts are missing: generators, ploughshares, and tires, which the farmer gets when they are available. Today, instead of saying "they are selling something," one says "they are giving something." At the same time, agriculture is a section of the economy in which the time and moment of carrying out a given activity determine its results. For example, a delayed agrotechnical operation is better left undone, as its results may bring damage instead of improvement. And of course, there is also the cost.

Opacki: The third factor is probably the soil, which is not fully utilized.

Manteuffel: I believe that there are no bad farms, only bad farmers. Every type of soil needs an appropriate way of production and appropriate intensity of culture. A farmer who works fen soil in the same way he works sand will undoubtedly go bankrupt. Farming is based above all on knowledge. One also needs great skill and intuition. The farmer must "feel" his farm, land and animals. For example, if he supplies fodder only on the basis of the norms, without observing how the animal uses it, he will never have good production results.

Opacki: How do you explain the high yields in recent years? Despite everything, by the increase in the farmers' knowledge of the trade?

Manteuffel: High yields are dependent not on the skills level, but on the climate. In fact, farmers have little influence on them. Apart from the year 1979, which was disastrous for the crops, and 1980, which was bad, other years had very favorable weather during the cultivation of winter and spring crops. An improvement in soil culture came over a period of several years, something which has had a great impact on yields.

Opacki: Can it be said, then, that peasants are backward?

Manteuffel: Peasants are a very heterogeneous social class; your statement is too strong. There are some very progressive peasants and some very backward ones.

Opacki: What is the percentage of the latter? Half?

Manteuffel: I am afraid to use any numbers, but maybe... Those are usually old people..

Opacki: Stubborn, resisting technological progress...

Manteuffel: Progress is a relative thing. Seeming progress is worse than a lack of it. I do not equate the concepts of knowledge and science. It is a terrible mistake to force the theoretical achievements of science into practice. It does more damage than good. Science must shape knowledge, which only then can be popularized. We cannot push the results of laboratory studies directly into agricultural practice.

Opacki: There is also a shortage of young, talented and inventive people in the countryside.

Manteuffel: Unfortunately, that is true. It even seems that mainly resigned "failures" with no other options in life, remain there. Although unjustified, the push to the cities is a normal phenomenon, occurring all over the world. Nevertheless, it is unhealthy and causes enormous losses to the economy and the state. I am not at all of the opinion that the population in the countryside must increase; on the contrary, it can decrease, but the best people must stay in farming.

Opacki: There is also a shortage of young women in the countryside.

Manteuffel: That is problem number two. Young farmers cannot find candidates for wives. Women do not want to work on the farm, they prefer to "polish" city pavements. One student of the SGGW [Agricultural Academy], expelled from the school, came to me and said: "Now I will not find a wife." To him it seemed that if he acquired an engineering degree he would find a wife. It is a great human tragedy. I know an owner of a 30-hectare farm in Siedlce Province who is at the edge of psychological resistance. He has everything his heart can desire, but he cannot find a wife. Women, after all, know that on such a big farm they would have to work hard.

Opacki: Do you see a solution to the problem?

Manteuffel: We must create non-farming jobs in the countryside at any cost so that women who fear farm work could do other jobs. A farmer without a life partner can cause the downfall of our agriculture.

Opacki: Let us return to agricultural problems. A farmer who wants to "make it" financially does not need not to put too much work into it, because, for example, high procurement prices make it easier for him.

Manteuffel: We have about 2.5 million farms, out of which only about 10 thousand or so have no financial worries. This is a small margin. Thus, I do not agree with you. In any case, I am an enemy of creating empty money. Procurement prices of grains and other agricultural products are not the source of discord and accusations, but empty store shelves. The farmer is unable to buy with money what he wants. The cause of what is happening and for which agriculture is blamed lies in non-agricultural sectors, mainly in industry, which produces insufficient amounts of the means of production and consumer products. The farmer, for years accustomed to the value of money, cannot

spend it in a rational way. On the other hand, the obtaining of the means of production is often connected with bribery.

Opacki: Thus, it is not true that there is too much money in the countryside?

Manteuffel: Of course. There are regions in the country and groups of farms in which money is, indeed, plentiful. This, for example, applies to horticulture.

Opacki: What are the reasons?

Manteuffel: They vary, but price relations are among them. Horticultural enterprises prosper thanks to free market prices and the dynamism, efficiency and industriousness of their owners. Farmers, on the other hand, are dependent on state regulated prices.

Opacki: Why, then, this whole atmosphere of suspicion and accusations regarding farmers?

Manteuffel: It results from the envy of those few people in the countryside who are, indeed, well off. City people have gotten used to the idea that a job or an office desk are what's needed for existence. They are comfortable with an hourly schedule and prefer that the state should worry about other things. I tell those people who have complaints against farmers: "The land is there, go and work it yourselves."

Opacki: Let me finally ask you about your stand on the church foundation.

Manteuffel: I have no opinion, because I know too little. Perhaps I should say: "My stand on it is moderate."

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## ROLE OF CHEMICAL INDUSTRY IN RAW MATERIAL PROCESSING

Bucharest REVISTA ECONOMICA in Romanian No 44, 2 Nov 84 pp 8, 9

[Article by Nicoleta Hornianschi: "The Chemical Industry - An Active Component in the Better Use of Raw Materials"]

[Text] In the process of the economic development of the country, the chemical industry was given the required priorities by virtue of the value and diversity of available resources, the contribution of this branch to the general progress of society and its role and importance in the higher processing of raw materials and in providing certain competitive products. Currently, and for the future 1986-1990 5-year plan, the dynamic growth of the chemical industry will be accompanied - as described in the Draft Directive - by a permanent concern for the reduction of energy and raw materials consumption. This will take place under conditions where we will achieve modifications in the structure of production in the direction of a more powerful development of fine synthesis chemicals, small-production-run products, ultra-pure materials, high-purity catalysts and other pure chemical substances.

Being part of the political-strategic coordinates that are characteristic of the different stages of our country's economic and social development, the chemical industry over the last 2 decades has been among the most dynamic branches of the Romanian economy, a fact demonstrated by the especially high average annual rate of production growth - of 18 percent - compared to the 11 percent average for industry overall. The sustained dynamics of material production - higher than that recorded over the same period in countries having industrial traditions, where the growth rates for the chemical industry varied between 6 and 12 percent annually - have allowed the Romanian chemical industry to capture in 1983 19 percent of the total volume of industrial production. This quantitative increase in production was accompanied by a permanent diversification of the list of products and by a continuing increase in the efficiency and degree of use of raw materials and energy. Thus, the degree of use of raw materials has reached the point in some areas, such as in the synthetic threads and fibers industry, of very high levels: 17.6 times greater for dimethyl-terephthalate, 18 times greater for acrylonitrile and 60-90 times greater for polyester threads.

With regards to the volume of physical production, there is evidence of an increase in chemical industry production of over nine times in 1983 compared to 1965, with Romania thus approaching - and for some products actually exceeding - the

per-inhabitant production level of developed nations from an economic point of view. Compared to 1965, in 1983 there were substantial increases for the majority of basic products in the chemical industry, for example: increases of 3.57 times for sulphuric acid, 11.6 times of synthesized ammonia, 9.8 times for chemical fertilizers, 1.84 times for pesticides, 26 times for ethylene, 111 times for propylene, 52 times for synthetic fibers and threads, 8.4 times for plastics, 25 times for basic aluminum and aluminum alloys, and so forth. The sharp rates of development, as well as the levels of production that were attained, were the results of a powerful development of the technical-material base, as expressed in the nearly 2,000 facilities and investment projects put into operation since 1965 through the end of 1983 in this branch. During this period, investment funds allocated to the chemical industry have increased 5.45 times over, with the main effort being directed towards the development of the petrochemical industry, a sub-branch capable of making the best use of a natural resources that is especially precious, such as crude oil.

An essential role in this development is being played by national scientific research, which, under the highly competent guidance and scientific authority of comrade academician engineer Dr Elena Ceausescu, makes available to the industry a wide range of original procedures and technologies that have been unanimously recognized throughout the world. The evolution of this branch's technical progress eloquently illustrates the contribution of our own scientific research. Expressing this process through the degree of upgrading production and through the introduction of new and modernized products and technologies in the production process, the growth rates were 7.4 percent in 1976 and 30 percent in 1980. We finalized and introduced into production 460 technologies, with 350 new products being obtained during these years and 26 industrial installations being brought on-line on the basis of the research of the Central Institute for Chemical Research. For the coming period, the Draft Directives call for an intensification of research in the direction of improving production technologies and raising the qualitative parameters of products to the world level, as well as creating new chemical and bio-chemical procedures for the purpose of putting to use new sources of raw materials and materials.

The continuing development of the chemical industry requires - as is stressed in the Draft Directives - the improvement of the structure of this branch, especially by way of the development of the top fields, as a decisive condition for intensifying production and producing products needed by the national economy and under conditions of a reduced specific consumption of raw materials and energy. Attaining this objective requires, among others, the introduction of certain technologies that are capable of allowing a decrease in the consumption of resources - with a priority on energy-intensive products (chloro-soda products, aluminum and so forth) - by way of a greater degree of recycling reusable resources and, generally, by way of better management of material resources. With regards to resource consumption, approximately 70 percent of this branch's production comes from processing crude oil and petrochemicals, energy products and chemical fertilizers, non-ferrous metallurgy, and synthetic fibers and threads, sub-branches which use approximately 80 percent of the total amount of electricity consumed by this branch, 71 percent of all fixed assets, 60 percent of all personnel and approximately 70 percent of all financial and material resources.

Since the percentage of material costs within the structure of actual costs of chemical goods production currently exceeds 70 percent (compared to 25-30 percent for the 1970's both in our country and worldwide) as a result of increases in the costs of raw materials and energy, it is easy to see the special importance of increasing the efficiency of resource consumption through the modernization of the current structure of the chemical industry by its branches in the direction of increasing the percentage of those products which ensure the best possible use of raw materials and materials that are consumed. Furthermore, internationally we are witnessing a process of transition from an epoch of maximizing production and consumption to an era dominated by the achievement of a minimalization of imported materials and increasing the efficiency of production activities in the chemical industry, pursuing not only economic efficiency, but also social efficiency on a broader scale (among other things, there has been a substantial increase in the percentage of investments slated to drastically reduce pollutants resulting from chemical processes, for the purpose of ensuring the protection of the environment).

The place held by raw materials and energy within the structure of production costs in the chemical industry (even in the case of developed nations) makes accessibility to them and the price at which they are available decisive factors in the competition of various producers, especially for those products found at the first stages of processing, with the advantage of raw materials that are cheap diminishing as the degree of processing increases. A comparison of use-indicators for resources involved in the production in different sub-branches and groups of products shows the superiority of small-volume products (where we see, for example, levels of production per 1,000 lei of fixed assets of 1,615 lei for medicines and pharmaceutical products, of 1,838 lei for dyes, pigments, laquers and paints) compared to those of large-volume (where these same indicators are 431 lei for chemical fertilizers, 691 lei for basic inorganic products, and so forth). -

Also in favor of the development of the production of small-volume chemical compounds at high rates are, among others, the favorable economic indicators attained by this category of products compared to those of large-volume. Representative from this point of view are molecular screens, where the percentage of material costs in overall production costs is 58.8 percent and profitability is at 38.3 percent; explosives for the mining industry, where the same indicators are 59.1 percent and 16.8 percent, respectively; and dyes and organic pigments, with levels of 68.4 percent and 35.8 percent, respectively. For large-volume products, profitability falls to 3.2 percent for caustic soda, 8.2 percent for chemical fertilizers and 9.3 percent for aluminum and aluminum alloys.

Keeping in mind the degree of maturity currently attained by our chemical industry it can be said that our national economy has the technical-material conditions necessary for important structural changes that will lead to substantial increases in resource consumption efficiency. From the point of

resource consumption efficiency, the hierarchical positioning of the main sub-branches of the chemical industry gives the top spots to the dyes, pigments, laquers and paints industry (which has attained 54,576 thousand lei of production per 1,000 MW consumption of energy, compared to 10,535 thousand lei on the average for the entire branch), the medicines and pharmaceutical products sub-branch (32,005 thousand lei of goods production per 1,000 MW) and processed products made of rubber and plastic (28,560 thousand lei of goods production per 1,000 MW and 2,907 lei per ton of conventional fuel compared to 9,832 lei per ton of conventional fuel on the average for the entire chemical industry).

#### Achievements From the Current 5-Year Plan

- Today, the chemical industry is represented by powerful, modern units in all the counties of the country. From the beginning of the current 5-year plan and up to today, 733 facilities and industrial production projects have been put into operation: new facilities and investment projects at the petrochemical combines at Pitesti, Brazi, "SOLVENTUL" in Timisoara, Borzesti, Midia; new installations at the chemical fertilizer combines at Bacau, Arad, and Slobozia; new electrolysis installations at the Giurgiu Chemical Combine, the Rm. Vilciu Chemical Combine and the Borzesti Petrochemical Combine; new installations for truck tires at Zalau Truck Enterprise, for automobile radial tires at the Floresti Automobile Enterprise and the Caracal Automobile Enterprise, tractor tires at the Danubiana Tractor Enterprise and the Tr. Severin Tractor Enterprise; installations for polyester fibers at the Corabia Synthetic Fiber Combine [SFC] and the Cimpulung Muscel SFC; polyester threads at the Vaslui SFC; polyamide fibers and threads at the Roman Polyamide Fibers and Threads Enterprise; silk-type cellulose threads at the "VISCOFIL"-Bucharest Synthetic Fiber Enterprise; and the artificial fibers and threads installations at the Suceava Synthetics Enterprise and the Braila Artificial Fibers Industrial Central.

- In 1983, as a result of research activities, over 1,300 new products and varieties were produced which contribute to providing substances and materials needed by the entire industry and to decreasing the country's hard currency demands. By employing the research developed by the specialists at the Bucharest Chemical Research Institute, a unit five times awarded the high title of "Hero of Socialist Labor," production worth approximately 800 million lei was obtained in industrial units and production costs were reduced by 57 million lei.

- In order to provide materials of high purity and high physical-chemical characteristics needed by certain top sectors of industry - electronics, aviation, nuclear energy - powerful microproduction sectors were organized. The value of the production obtained from these sectors doubled in 1983 compared to 1982.

- The degree of upgrading chemical industry production during the 1981-1984 period, expressed in the percentage of new and modernized products in the total Ministry of Chemical Industry goods production, increased from 5.8 percent in 1981 to 20 percent in 1984.

- The list of exports of the Romanian chemical industry was been expanded by new groups of products with a higher degree of processing and with a higher unit value which ensures a better use of raw materials on the basis of technologies that have been drawn up by the Central Institute of Chemistry and which have appeared for the first time for export in the 1980-1983 period, such as: polyisoprenic rubber, monomere styrene, normal parafins, formaldehyde, magnesium carbonate, cord fibers, barium chloride, synthesized ethyl alcohol.
- Over these years, we have achieved specialization in products having a high degree of processing, increases in per-ton value and an ever greater adaptation to the requirements of users, trends that are also illustrated by the increases in the percentage of exports of high-processed Romanian chemical products: 16.6 percent in 1980, 21.3 percent in 1983, with a forecast for the 1985 figure to reach 26.5 percent.

Provisions in the Draft Directives

- Forecasts for development to take place at an average annual rate of 8.5 to 9 percent in the chemical industry, with a priority orientation towards the higher processing of raw materials.
- According to the provisions of the Draft Directives of the 13th Party Congress, there will be a furthering of the processes for the higher processing of crude oil, pursuing an increase in the percentage of white products to 60-70 percent. Research will be increased for raising the level of chemicalization of methane gas, well gases and furnace tars, as well as for the purpose of obtaining hydrocarbons that can be chemicalized, methanol and other non-petroleum sources.
- Significant increases are foreseen in the field of fine synthesis chemistry, small-volume products, ultrapure materials, semi-conductors and monocrystals, high-purity catalysts and other pure chemical substances.
- There will be a development of the production of liquid chemical fertilizers and those complexes having micro-elements. The production of pesticides will increase by 1.4-1.5 times, being directed towards non-polluting varieties and long-acting efficiency. The production of chemical fibers and threads is to be carried out especially on the basis of high-value varieties. There will be an increase in the production of biosynthesis and fine synthesis products. Synthesis technologies will be introduced for the production of new types of rubbers and plastic materials. In the production of laquers, paints, dyes and organic pigments, we will work to produce varieties having superior characteristics made from indigenous raw materials.

In the perspective of the future 5-year plan and the coming decade, the restructuring of the chemical industry in accordance with the potential of its own resources and the requirements of ensuring the country's energy independence will require - as is stressed in the Draft Directives - the selective development of the branch by way of significantly reducing the

percentage of energy-intensive product groups or those products based on imported raw materials (from approximately 65 percent at present to approximately 40 percent in 2000) and promoting intensely those sub-branches and product groups which best respond to the criteria of minimum resource consumption and increased economic efficiency. Figuring the continuing evolution of the chemical industry under the criteria of the program objectives contained in the Party's Program and keeping in mind both the restrictive nature of the "raw materials" factor and the level of development and economic efficiency specific to the different sectors of the chemical industry, the Draft Directives expressly emphasize the fact that bringing efficiency to resource consumption will also be in the future one of the major criteria which will shape the structure of the modern chemical industry on the horizon of the period 1990-2000.

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ROMANIA

#### EFFORTS TO INCREASE COAL YIELDS OUTLINED

Bucharest REVISTA ECONOMICA in Romanian No 44, 2 Nov 84 pp 13, 14

[Article by Ion Marascu and Mircea Guran of the Ministry of Mines: "Reserves for Increasing Coal Production"]

[Text] The constant concern of our party and state for the development of an energy base and the provision of the necessary amounts of raw materials from domestic resources has been expressed year-to-year in the increase in the volumes of coal extracted from mines and pits. The results that have been obtained are the direct result of measures undertaken, first of all, the complex mechanization of mining work both underground and in open pits - priority objectives in this 5-year plan. In this manner, the necessary conditions were ensured for increasing the percentage of coal used in the production of the country's electricity, for the purpose of replacing significant amounts of higher fuels such as petroleum and natural gases, as well as for the production of coke and semi-coke.

The main directions for introducing, improving and extending complex mechanization technologies are divided into three broad categories according to the type of work: equipment for excavating, transporting and piling lignite from open pits; mechanized equipment for supporting, cutting, loading and transporting lignite and mineral coal from underground mines; power equipment for digging and temporary and permanent support in the shafts in lignite and mineral coal mines.

At the direction of comarde Nicolae Ceausescu, on the occasion of his working visit in December 1982 to the Jiu Valley coal basin, the Ministry of Mines, in cooperation with the Ministry of the Machine Building Industry, drew up a broad program to mechanize the main technologies for digging and extracting coal in pits and mines, including measures for extending the supply of necessary equipment and devices. Analysis of the current stage mechanization and automation in the extraction of lignite points out the fact that, this year, 85 percent of production will be achieved by way of these procedures and only 15 percent through manual operations.

In general, coal production has been and is strongly influenced by the large-scale introduction of mechanized equipment technologies both in open pits and mines. The substantial growth in the number of equipment and mechanized equipment made it possible so that in the first 9 months of the year 75 percent of total coal production was accomplished by mechanized procedures. In open pit lignite mines,

for example, rotor excavators have a capacity of up to 2,000 cubic meters per hour [cm/h] and the waste heap machinery are up to approximately 12,500 cm/h and can transport and deposit the waste up to 90 meters from the point of extraction. The transport of the coal itself is done continuously by means of main conveyor belts (over 250 km long) with a flow of 8-10,000 cm/h. The use of complex technologies for support, cutting, loading and transporting coal in underground mines having a long cutting face has, similarly, a rising trend, reaching 9,4 million tons in the first 9 months of this year compared to approximately one million tons in 1965. Thus, the entire production of 1965 is attained in 1984 in less than one month using this technology.

Another important category of mining work, one which has been given special attention within the scope of mechanizing digging and support technologies, is that of opening galleries and preparing the mines and future coalface shafts. This technology, improved in recent years on the basis of our own research and technological engineering, includes powered equipment for digging and temporary and permanent support work for the galleries, both for mineral coal mines and for lignite mines. The number of heading combines introduced into production reached 272 units in 1984 compared to just 15 in 1965. By supplying the mining units with heading combines complex problems were resolved in cutting and mechanized loading, coming to attain record advance speeds of over 100 meters per month compared to the maximum of 40 meters per month by using the classic method of drilling-shooting.

The quantitative and qualitative changes in the technical equipping of mines cover the needs of this branch completely. Nonetheless, this year the mechanized resources were not used at full capacity, which directly affected the level of coal production that was obtained. The status of the indices for equipment use for the five main basic types of equipment during the first 3 quarters of the year reflects the underuse of mechanized resources.

The causes of such a state of affairs are many. Principally, they refer to: - the use of mechanized equipment without ensuring the operating conditions for the planned period, since the work for opening useable coal fronts was not appropriate or not done on-time; - long periods of downtime for certain types of equipment (of high efficiency) because of inappropriate handling and poor quality repairs; - insufficient provision of qualified workforce, especially during vacation periods (second and third quarters); - the provision of certain spare parts on-time, and so forth. These phenomena occurred both in the mines at the Jiu Valley Combine and, especially, at those in the open pits in the Rovinari and Motru combines, units which, furthermore, have the majority of the plan tasks. Certainly, if these things had not happened, the daily level of coal production would have been at much higher levels.

Keeping in mind the need to accelerate the recouping of shortfalls in achieving the daily plan, the important amount of investments allocated to the mining industry for supplying and mechanizing its work, and the human potential that this branch, as well as each unit and mine, has, recent analyses have led to the

establishment of priority programs of measures that will lead to attaining the planned use indices. The measures that have been drawn up have in mind both the recouping of shortfalls from this year in those mines that are behind as well as the preparation for production in 1985. Among these, the priorities call for creating the conditions necessary for a better use of all mechanized resources on-hand.

1. With regards to the coalface power equipment, attention will be directed on a priority basis towards: - carrying out overhaul and repair work programs of better quality and within planned timeframes; - completing overhaul and repair schedules in better coordination with current production tasks;
2. For heading power equipment, the measures call for: reducing the number of hours needed for accidental repairs, by having a better supply of spare parts and necessary materials; - having the necessary personnel to man the equipment and for overhaul and repair teams; strictly adhering to the technologies for heading work;
3. In the case of rotor excavators, attaining the planned use indices requires: - increasing the work time on each technological line; - creating certain groups of specialists who will study and see to the better use of working conditions underground; continuing actions to replace rubber conveyor sections having a high degree of wear on all transport routes.
4. In the case of bucket excavators of over 2.5 cm size, there will be more effective interventions made at the producer's end in order to supply the necessary spare parts and to increase the reliability of certain sub-assemblies so as to reduce the number of hours needed for accidental repairs. With regards to loading machinery, we will work to improve the quality of repairs and those spare parts fabricated by the Alba Iulia Enterprise for Mining Equipment and Repairs, and to strictly adhere to heading and coalface working technologies in accordance with the approved mining programs.

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## EXPANDING POTENTIAL OF INDUSTRIAL ELECTRONICS

Bucharest REVISTA ECONOMICA in Romanian No 46, 16 Nov 84 pp 25-26

Article by I. Breazu, director of the Cluj-Napoca Enterprise for Industrial Electronics and Automation/

Text/ The current picture of the electrotechnical and electronics industry is that of a strong sector with a constantly developing and diversified output. The advancement and subsequent development of this sector promoting peak technology are direct results of the RCP's policy of socialist industrialization, and they are fully confirmed by the 64 such units now on the economic map of Romania.

The rapid growth and continuing diversification of the output resulted in the increasingly wide spread of electronics and automation to all sectors of the national economy, and now the electrotechnical and electronics industry is supplying the other industrial sectors with a number of highly technical products and instruments. The results obtained in equipping the cement factories, the factories of the food and light industries, the refineries and blast furnaces, and the nuclear-electric power plants with such apparatus and instruments bear witness to the technical maturity and creativeness of the workers collectives in this sector.

In pursuance of the main investment objectives of this 5-year plan, the Cluj-Napoca Enterprise for Industrial Electronics and Automation is one of many examples of Romania's effort to give priority development to its peak industries. Appearing on the economic map of Romania 4 years ago, the enterprise was located in the electronics district of the municipality, alongside the Electronics Faculty, the Data Processing High School, the branches of three institutes for technological research and engineering (IPA /Automation Research and Design Institute/, ITC /Research Institute for Computer Technology/, and ICSITE /Institute for Scientific Research, Technological Engineering and Electronics/), and the Regional Center for Electronic computing, thus providing for integration of research with production.

Through sustained efforts the enterprise kept diversifying its production structure, and now it can produce 100 peak-technology products essential to all sectors of the economy, such as equipment for long-distance data transmission and

processing (MODEM's for transmitting data at speeds of 100-19,200 bits per second and TERMINALE with microprocessors and programming possibilities, used in data processing); remote control equipment (local stations for oil and gas wells and dispatcher stations for oil wells and mines, with microprocessors and programming possibilities); elements and equipment for automation in the petroleum, light, chemical, metallurgical agricultural and transportation industries (electronic transducers, numerical indicators, analytical instruments, sources of feed\* modulation for laboratories and electronic equipment, equipment for automated signaling and protection, and testing equipment); and electronic instruments for the following fields of medicine: laboratories and medical analyses, physical therapy and recovery of working capacity, diagnosis and monitoring, surgical units, and intensive therapy.

In accordance with the requirements for promoting technical progress, the enterprise is provided with the most modern equipment, permitting application of such advanced technologies as testing prepared plates with imprinted circuits by computer-assisted equipment, soldering electronic components in installations with a tin wall /val/, computer-assisted design, processing parts by electric erosion, and galvanic plating without cyanides.

In the next period new technologies will be assimilated through the joint efforts of the researchers, such as semiautomatic insertion of electronic components on plates with imprinted circuits, testing prepared plates by computer-assisted equipment with automated programming, automation of feed processes in pressing and stamping operations, assembling conductors and connecting elements by crimping, cleaning metal components by ultrasonics in order to prepare the surfaces for galvanizing, accelerated tests in the final testing of products to enhance their reliability. Application of these modern, highly productive technologies is especially intended to increase labor productivity, which will be 4 times higher in 1990 than in 1980, to reduce consumption of materials and intensify use of metal by 18 percent, and to reduce the material outlays per 1,000 lei of commodity output by more than 170 lei.

During this five-year plan the output of the electrotechnical and electronics industry is growing at an average annual rate of 30.8 percent, and the foundations are being laid for development of new activities such as robotics and complete automations with robots, microelectronics and the first microprocessors.

Diversified production has resulted in radio communications and closed-circuit TV equipment for various uses, systems for automated regulation of management of technological processes with microcomputers, electronic instruments and equipment for medicine, numerical controls for machine tools, equipment for nuclear electric power plants, and electric servomotors and micromotors for powering automation mechanisms.

In 1984 the output of this industrial sector showed major gains over 1980, namely 118.7 percent in electrotechnical measurement and control devices, 111.0 percent in refrigerators, 113.6 percent in industrial and professional electronics equipment, 174.8 percent in electronic automation means, 171.0 percent in electronic components, and 139.7 percent in facilities for electronic computer technology.

\*/alimentare modulare/

ROMANIA

#### DEVELOPMENT OF AERONAUTICS INDUSTRY

Bucharest REVISTA ECONOMICA in Romanian No 46, 16 Nov 84 pp 24-25

Article by Andrei Cristea, director of Aerofina Enterprise: "The Aeronautics Industry: a Dynamic Development"

Text The Romanian aeronautics industry is an integral part of the magnificent progress made by the Romanian people in national socialist construction. The new foundations for the development of this peak sector wherein Romania has old traditions were first laid in 1968, and since then the aeronautics industry has undergone a development unprecedented in Romanian history.

Today Romanian aeronautics is producing a wide range of planes of high technical quality that are valued both at home and abroad. Romania has extensive production capacities for their manufacture that have been built in the last 10-12 years and provided with the latest machinery and equipment in use in this field. In addition to the already existing production capacities, the following have been activated during the current five-year plan: the Romanian Metallurgical Enterprise for Aeronautics (partial) in the Baneasa district, which is to produce the entire volume of cast and forged parts for all aircraft specified in the aviation development program; the Bucharest Aerofina Enterprise for Aerospace Equipment, which is to manufacture apparatus and equipment for all types of aircraft manufactured in Romania; and the factory for fuel assemblies and equipment within the Bucharest Turbomecanica Enterprise.

In both its structural and productive features the Aerofina Enterprise for Aerospace Equipment, one of the units formed during this five-year plan, ranks among the highly technical enterprises that conclusively demonstrate the progress Romania has made in the aeronautics field. Aerofina is designed as a major production capacity to meet the domestic needs and thereby reduce the foreign exchange outlays on imported on-board equipment and apparatus for aircraft. The enterprise was designed and constructed by Romanian specialists, and it is located in the Pipera concentrated industrial district along with such enterprises with advanced technology as Electronica, Calculatoare, IEMI [Enterprise for Electronic Measurement and Industrial Instruments] etc., with which it collaborates intensively.

Combining research, design and production at one point, Aerofina is unique by the nature of its activity and a first in the national economy. Performance of

research and design activity alongside production within the same enterprise carries out Nicolae Ceausescu's directions to minimize the research-design-production cycle. The enterprise's production structure is very broad, from ultraprecision machinery to electronics and computers, and it covers the whole range of on-board mechanical, electromechanical, gyroscopic, electronic and other equipment. The products the unit manufactures are designed to equip the aircraft built by the Romanian aeronautics industry for domestic and export needs.

Because of the nature of its activity the enterprise's inventory includes highly technical devices and equipment with excellent performances, a great many of which are manufactured in Romania. Moreover the enterprise uses new, peak technologies to produce a very complex output with special processing for quality, reliability and durability. This year the enterprise's research plan includes six new technologies in full development, the application of which will reduce imports considerably. These technologies permit intensive exploitation of the raw materials and materials with greater profitability from each product. It should be noted here that we have been trying to keep improving the production process on the basis of the good results obtained in the assimilations made by our collective. At present the degree of assimilation is over 80 percent, and for the immediate future imports will be strictly limited to professional components with excellent performances.

The enterprise has highly qualified personnel in the fields of data processing and industrial and economic research, in which it is meeting its standards for the year 2000. In the first 4 years of its existence it has made any number of advances in cybernetization of the activity, such as development of the IRI-2030 language for programming machines with numerical control and of a package of programs for intensive design and machining of aircraft components (FCORE\*, a three-dimensional graphic medium), as well as applications in the traditional sense of data processing, such as checking the start and progress of production, recording and calculating amortization of fixed assets, the procurement requirement, etc. The present results as well as those that will be completed in the next period show that application of computer technology increases labor productivity at least 20 percent.

Thanks to effective research and production activity over 60 types of instruments, all of our own design, have already been assimilated in production. With qualitative and operating parameters on a par with the previously imported ones, the products have been installed in aircraft at the specialized enterprises in Brasov, Craiova and Bacau and appreciated by the beneficiaries. The enterprise's original designs of the products, its technological inventory, and the high quality of the instruments guarantee their operation at a high level of the human and technical potential.

An outcome of the party and state administrations' constant efforts to develop the aeronautics industry, the enterprise is seeking the shortest way to the top of the pyramid of the industry, which it is to reach at the end of this five-year plan through research, design, assimilation and series production of the most most complex instruments for aircraft.

In the 1981-1984 period the industrial output of the Romanian aeronautics industry increased at an average annual rate of 7.2 percent, and the average rate specified for the whole 5-year plan will be 15.6 percent.

Manufacture will be diversified by shifting the emphasis in the production structure from plane and engine repairs to plane construction (ROMBAC 1-11, IAR-316 and 317 light helicopters, IAR-330 medium helicopters, IAR-823 and IAK-52 school and training planes, agricultural planes and various varieties of gliders and motor gliders).

The following new capacities were activated in 1981-1984: the Aircraft Enterprise and the Romanian Metallurgical Enterprise for Aeronautics (The latter was partially activated, and both are in the Baneasa industrial district); the factory for fuel assemblies and equipment within the Bucharest Turbomecánica Enterprise in the Militari industrial district; and the Aerofina Enterprise for Aerospace Equipment in the Pipera industrial district.

The following are peak products and technologies of the Romanian aircraft industry: manufacture of high-precision aeronautic transducers and some elements of the on-board gyroscopic apparatus; manufacture of flight and automatic-pilot recorders; technological procedures and processes to protect the surfaces of parts operating under special conditions in engines; manufacture of fuel equipment for aircraft; and manufacture of aircraft parts of cobalt-based superalloys. The economic effect estimated for the 1981-1985 period consists of reduction of the nation's foreign exchange investment by more than \$1 million a year.

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#### DEVELOPMENT OF MARITIME PORT INFRASTRUCTURES

Bucharest REVISTA ECONOMICA in Romanian No 46, 16 Nov 84 pp 27, 30

Article by Eng Andrei Taru: "Development of Seaport Infrastructures"

Text Romania's seaports of Constanta, Mangalia and Midia are on the western shore of the Black Sea and handle 85 percent of Romania's export-import and through seagoing traffic, while the rest of the freight goes through the river-sea ports of Sulina, Tulcea, Galati (the commercial port and the industrial port) and Braila, which are on the maritime Danube.

Before World War II Romania had just one seaport, the old port of Constanta, through which products of the earth (bread grains, lumber and petroleum products) were exported and industrial products were imported, and it was accordingly proportioned for that commodity structure and for the types of ships of the time. Now 40 years after the Antifascist and Anti-imperialist Revolution for Social and National Liberation of 23 August 1944, which inaugurated a new era of radical revolutionary changes and opened the way to socialist construction, Romania appears as an industrial-agrarian country with a strong industry and a modern socialist agriculture in full development.

Romania now maintains economic relations with 150 countries of the world and its volume of foreign trade operations is 39 times greater this year than in 1950. During this period Romania strengthened its economic power and diversified its production, playing an increasingly active part in the international division of labor and developing international collaboration and cooperation, and its exports are now 50 times greater and its imports 30 times greater than they were in 1950.

In correlation with this very dynamic growth of the volume of foreign trade, the higher party administration emphasized development of the seaports to handle Romania's export-import traffic and a large volume of shipping for the countries on the Danube. In the last two decades major funds have been allocated to modernize and develop the ports of Constanta, Galati and Braila, and the ports of Mangalia, Midia and Sulina and that of the Galati Iron and Steel Combine have been constructed.

Constanta-Sud port is on the western shore of the Black Sea about 180 miles from the Bosphorus and 85 miles from the mouth of the Sulina Branch. It was modernized

and developed under the direct guidance of Party Secretary General Nicolae Ceaușescu, who gave directions for developing and equipping the port on his many working visits and in the analyses made during the last two decades so that it would qualify as one of the great ports of the world in the class of Hamburg, Le Havre, Los Angeles, Vancouver etc. and as the greatest port in the Black Sea region.

Constanta port's capacity for handling export-import and through freight has increased by 8 times since 1965. It occupies an area of 722 hectares protected by 68 km of dikes, enabling it to receive ore boats up to 65,000 tons and oil tankers of 80-150,000 tons.

The port now has 65 operative berths totaling 13 km of quays, to a depth of 8.50 to 19.50 meters, storehouses for general freight and freight in bulk (fertilizers), refrigerating warehouses, silos (bread grains, phosphates, cement), platforms fitted for storing freight, rail and highway communication lines, telecommunications installations, and all facilities essential to efficient operation.

Seven enterprises for port operations are functioning in the port, corresponding to sectors of the national economy, with the respective maritime export-import tasks:

- The bread grains sector is equipped with silos and modern high-capacity installations for handling bread grains.
- The ore, coke and coal sector is equipped with high-capacity cranes and unloading platforms and with warehouses equipped with installations to deposit and withdraw raw materials.
- The utility sector is equipped with high-capacity unloading platforms, silos and conveyor belt installations for direct delivery to freight cars.
- The sector for exporting fertilizers and cement is equipped with silos and special installations for delivering the commodities in tubs, in sacks or in bulk.
- The container terminal is equipped with high-capacity container carriers and movers for handling containers with 20 and 40 legs and special platforms for storing them. The terminal for Ro-Ro ships is equipped with an opening bridge.
- The sector for petroleum products and liquid chemicals is equipped with high-capacity pumping installations and tanks.
- The sector for general freight is equipped with storehouses and platforms for storing the freight and with cranes on the quay of 5-16 freight tons, and also with automotive stackers for mechanizing loading and unloading operations both in the holds of ships and on platforms and in warehouses.

The port is provided with a modern technical and service fleet and a corps of well-instructed pilots assuring all ships of their entry and exit from port and performance of harbor maneuvers in complete safety. Branches of the NAVLOMAR and ROMTRANS foreign trade enterprises, repair shops etc. operate within the port and can provide all services required by foreign seagoing ships.

Protective dikes are now under construction for expanding Constanta port to the south, forming a port enclosure of about 2,700 hectares and permitting growth of the port's traffic capacity by three times more, compared with 1985, as the needs of the national economy develop.

Work is being completed to double the capacity of the ore, coke and coal sector, that of the river port for servicing the Danube-Black Sea Canal, and that of the terminal for handling specialized ships of the ferry boat type. The port's handling capacities pertaining to these operations are to be activated by 1990, on a staggered basis. The construction and activation in May 1984 of the Danube-Black Sea Canal, that magnificent construction of the Ceausescu Era, connect Constanta port by water, via the Danube, with the Central European countries and with the North Sea when the work on the Rhine-Main Canal is finished. This is making Constanta port one of the greatest ports in the world, where freight can be shipped to and from port by rail, highway and water transport, which is the cheapest transport means.

Mangalia port is also on the western shore of the Black Sea about 25 miles south of Constanta port. It is an entirely new construction built at the direction of the party secretary general for the most efficient use of the area built up by modernization and development of the Mangalia 2 May Shipyard. This commercial seaport was activated in 1983 and has a harbor area of about 80 hectares and 9.00 meters deep able to receive seagoing ships with capacities up to 10,000 tons dead weight, two operative berths totaling 0.8 km of quays equipped with portal cranes of 5 freight tons, platforms and storehouses for storing freight, utilities and highway communication lines. It is specialized for handling general freight. Work is being done and completed to connect the port with the railroad facility of the Socialist Republic of Romania.

Depending on the needs of the national economy in the future the port's capacity can be doubled within the present premises by building new quays equipped with modern installations for handling the ships.

Midia port is on the western shore of the Black Sea about 10 miles north of Constanta port. It was built at the direction and under the direct guidance of Nicolae Ceausescu, close to the Navodari Chemical Fertilizers Combine and Petrochemical Combine. A harbor area of about 560 hectares was installed by lengthening the existing dikes, with depths of 8.00-10.00 meters to receive seagoing ships.

The port is intended for export of chemical products of the two Navodari combines and for export-import of general commodities of the national economy. Through internal improvement operations it can provide in the future an annual traffic capacity of 20 million tons. The port was activated in 1984 through construction of two berths for general freight traffic.

In 1985-1990 and thereafter up to 1995 the following capacities are to be built in the port:

- A mooring and storage port for imported ammonia and liquid methanol.
- A worksite for repairing Midia seagoing ships.

- A base for the seagoing fishing fleet.
- A base for exporting livestock on the hoof.
- The river port to service the Poarta Alba-Midia-Navodari Canal.

Midia port is the nation's second seaport that will be connected by water, via the Poarta Alba-Midia-Navodari Canal, to the Danube-Black Sea Canal and further via the Danube with the Central European countries and via the Rhine-Main Canal with the North Sea.

In the last 20 years the river-sea ports of Galati and Braila have also been modernized by installing new fronts for handling freight and equipping them with modern harbor facilities, increasing their handling capacity for seagoing traffic by 1.3 and 4 times respectively compared with 1965.

The following have also been constructed and activated: the port of the Galati Iron and Steel Combine, with one special sector for importing ore, coke and coal and another for exporting iron and steel products; the Tulcea industrial port servicing the Tulcea Metallurgical Combine; and Sulina port with a free zone system, administered by the Ministry of Foreign Trade and International Economic Cooperation.

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## ROLE OF HYDROELECTRIC POWER PLANTS IN ENERGY DEVELOPMENT

Bucharest REVISTA ECONOMICA in Romanian No 46, 16 Nov 84 p 22

Article by George Simionescu, Hydroelectric Power Studies and Design Institute: "Hydroelectric Power Plants in the Strategy of Power Engineering Development"

Text Who travels through Romania today toward any important point in it will see not only the broad fields, the mountains covered with boundless forests, and the multitude of oil wells, metallurgical and chemical combines, new worksites, and cities and villages so radically renovated in their architecture but also the endless high-voltage power lines and the great citadels of light. The latter are no less impressive on the map of the national electric power system. The bright blue stars indicating the hydroelectric power plants as well as the red ones marking the thermoelectric power plants convey the gigantic effort of the state and the people to build as many and as powerful sources of light and power as possible. The hydropower constructions and installations on the Sebes River are among the large ones put up during the present five-year plan. What actually has been and is being accomplished here?

From ancient times the waters of the Sebes River have been used for transporting logs and for mills and fulling mills for processing cloth, some of which are still standing today. And it was in the Sebes valley that a water wheel was invented that was the forerunner of Pelton turbines of today. But the real application of the waters of the Sebes River has been achieved in the years of socialism, and especially in recent years.

The Sebes River has highly important and favorable power-economic characteristics. From the upper part of the basin in the Sebes Mountains, from Surianul and its peak Patru to the confluence with the Mures, of which it is a tributary, the Sebes has a fall of 1,136 meters with a feasible technical potential of 370 megawatts, leading to construction of electric power plants at Frumoasa, Gilceag, Sugag, Sasiori, Petresti and Sibiseni. Of those, the Gilceag, Sugag and Petresti power plants, with a total installed capacity of 304,200 megawatts, were activated in the period between the 12th and 13th congresses, while the Sasiori power plant, with an installed capacity of 42 megawatts, is under construction and will be activated in 1985. The other two power plants will be built during the next decade.

This staggered construction of the Sebes valley power plants is due to technical-economic considerations and the necessity of maximum effectiveness of the investments. The technical-economic indicators of the Sebes River valley hydro-power installations are highly favorable and the hydroelectric power plants, especially those at Gilceag and Sugag, are among the most effective in Romania. The Gilceag and Sugag plants have an installed capacity of 150 megawatts each and a power output of 520 million kilowatt-hours in an average hydrological year at a cost of 0.13 lei per kilowatt-hour of power produced. It will take 14 years to recover the total investments.

Since their activation (Gilceag in 1980, Petresti in 1932 and Sugag in 1983) these plants have supplied the National Power System with more than 600 million kilowatt-hours, over 100 million of which were produced above plan by connection to the system much earlier than planned. The Petresti Hydroelectric Power Plant boasts an installed capacity of only 4.2 megawatts and an annual output of 8 million kilowatt-hours, but it plays an important part in harnessing the Sebes River for hydroelectric power. Its reservoir restores the discharges used up by the power plants upstream while supplying 2.0 cubic meters of drinking water of the best quality per second to an entire highly important microregional system composed of Sebes, Alba Iulia, Blaj and Aiud cities. Note that the water supply in this system is largely gravitational, and the electric power consumed is very limited. The Petresti Hydroelectric Power Plant is also equipped with a 200-kilowatt generating set processing the energy of the service discharge of 2.0 cubic meters per second for the use of the localities downstream, namely Petresti, Sebes and Lancram.

And in addition to supplying electric power and drinking water, the harnessing of the Sebes River also solves problems of flood control and irrigation of the farmlands in the Mures River basin. The improvements plan calls for reservoirs: at Frumoasa, with an accumulated useful volume of 1.0 million cubic meters, at Oasa, with 126 million cubic meters, at Tan, with 18.5 million cubic meters, at Obrejii de Capilna, with 3.0 million cubic meters, and at Petresti, with 1.0 million cubic meters. Of these, the Oasa, Tan and Petresti reservoirs are in operation. Modern and efficient methods have been used to implement the improvements plan, making full use of the geomorphological features of the area.

The intakes of the Gilceag and Sugag power plants largely consist of underground tunnels with a total length of 51.2 km, including 22.2 km of main intake and outlet tunnels and 29.0 km of secondary intakes concentrating the water discharges along the main line of the installation. Both the Gilceag and Sugag power plants are underground and equipped with two 75-megawatt Francis turbines each. The Gilceag Power Plant also has a pumping station with a discharge of 3.0 cubic meters per second, a pumping height of 270 meters, and a capacity of 10 megawatts. The waters drawn from the river basin are pumped by it into Lake Oasa.

As parts of a vast program to develop the power base, these installations will help to better meet the needs of the national economy and to attain the goal of securing energy independence.

In the 1980-1984 period the installed capacity of the electric power plants in Romania was increased by more than 29 percent, while the installed capacity of hydroelectric power plants is up more than 46 percent and that of thermoelectric power plants is up 24 percent.

At present the hydropower potential of the main rivers of Romania is harnessed 100 percent on the Lotru, 91 percent on the Somes, 85 percent on the Cerna-Motru-Tismana system, 81 percent on the Sebes, 68 percent on the Arges, 46 percent on the Olt and 45 percent on the Danube.

Beginning in 1980 a large number of hydroelectric power plants were activated annually, with a total installed capacity of 1,353.7 megawatts. The activation of these hydroelectric power plants (such as the ones at Zavideni, Dragasani, Slatina, Calimanesti and Turnu on the Olt River, Bradisor on the Lotru River, Tismana in northern Oltenia, Dragan-Remeti in the Apuseni Mountains and Agigea, connected with the Danube-Black sea Canal by the lock at Agigea, etc.) added over 4 billion kilowatt-hours to the National Power System, at least 1 billion of which were above plan. The activation of the first power units of Iron Gates II Hydroelectric Power Plant will be an outstanding hydropower event of this year. Together with Iron Gates I, in operation since 1971, it constitutes the first and most important step in harnessing the Danube.

In the last 5 years new coal-based capacities for producing electric power have been activated in the Rovinari (330 megawatts), Doicesti (400 megawatts) and Mintia (210 megawatts) thermoelectric power plants.

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ROMANIA

#### IMPORTANCE OF DANUBE-BLACK SEA CANAL

Bucharest REVISTA ECONOMICA in Romanian No 46, 16 Nov 84 pp 20-21

Article by Nicolae Ocanoia, director in Department of Naval Transportation, Ministry of Transportation and Telecommunications: "The Danube-Black Sea Canal: a Magnificent Construction of Socialism"

Text7 The first cargo was shipped recently, from the FRG and bound for the Near East, on the Danube-Black Sea Canal, Romania's navigable waterway widely open to international traffic. It is a cargo of equipment and products of the RFG's machine building industry carried by the motor barge Hanseat to Constanta port in order to reach the customer in the shortest possible time.

The passage through the canal and the locks at Agigea was accomplished safely and efficiently. The canal is accordingly opening its gates more and more widely to international shipping, helping to encourage mutually advantageous economic collaboration. Klaus Ott, the representative of the river shipping company Bayerischer Lloyd, stated that "The Danube-Black Sea Canal offers great advantages to firms interested in trade in commodities between Central Europe and the Black Sea and Mediterranean areas. The route is 400 km shorter, the cargoes are reloaded promptly in Constanta port, and the ships' locking presents no technical problems for the Romanian specialists. We are convinced on this occasion that we can cooperate very well with the Romanian river and sea transport organs on a basis of mutual benefit and understanding. Use of the canal as the shortest route to the sea has proved to be the most efficient commercial solution. Accordingly we want to open an office in Constanta port in order to expand our shipping on the canal."

By virtue of the extent and complexity of the operations as well as the huge human and technical potential involved in its construction, the new navigation route placed on the map of Romania, the Danube-Black Sea Canal, is the most magnificent construction achieved in all Romanian history. The canal, inaugurated and activated on 26 May 1984, connects Constanta seaport with Cernavoda river port and all the ports of the riverine countries beyond it via the Danube. In the future the construction of the Rhine-Main Canal will also provide a connection with the North Sea.

The Blue Highway, a magnificent achievement of the Ceausescu Era and of the Romanian people's creative thought, is 64.2 km long, 90.0 meters wide, and 7.0 meters deep, permitting entirely safe navigation of ships with capacities up to 5,000 tons. At Cernavoda, the point of entry into the Danube, and at Agigea, the point of entry into the Black Sea, the canal has two twin locks designed and equipped up to world technical standards, permitting locking within 24 hours of 24 convoys consisting of six 3,000-ton barges and one 4,800-hp tugboat, a capacity equivalent to passage through a lock of 860,000 tons of freight in both directions of traffic. The annual through capacity of the canal in both directions is 75 million tons, permitting water transport of cargoes from and to Constanta port by sea. Cernavoda port was built at the entry into the Danube, and it can handle 1.0 million tons of freight a year, while Constanta-South port was built on the Black Sea and will ultimately have an annual handling capacity of 150 million tons a year.

Along the route of the canal work is being completed on Basarabi and Medgidia ports, which will permit handling 1.7 million tons of freight in 1965. The port to service the canal is being installed at the entry of the canal into Constanta-South port, as well as an area under a free zone system, where it is expected to make special arrangements for renting loading platforms, berths, warehouses, equipment and installations and to found specialized Romanian enterprises either directly or jointly with foreign firms and economic organizations, especially by forming mixed trading companies or mixed companies for production, sales, finance, banking, recreation and tourism. Freight can be shipped to the free port of Constanta-South in high-capacity ships for lower storage fees than those at the other ports, which have no free port system.

The Danube-Black Sea Canal is a navigable national waterway under the sole sovereignty and jurisdiction of the Romanian state. It is managed and operated by Romanian state organizations and is open to navigation by other states' cargo and passenger ships on the terms set by Romanian law. Fees are charged for passage through the canal and for use of the ports and their installations, to the amounts set by Romanian law in keeping with the amounts of world fees and charges for such operations. The construction and activation of the canal have shortened the distance between Cernavoda and Constanta ports by about 400 km, considerably lowering the shipping costs and permitting the use of river shipping, the cheapest transport means.

The Romanian River Fleet frequently carries ore, coke and coal for the Galati, Resita and Hunedoara Iron and Steel Combines and phosphates for the Turnu Magurele Chemical Combine via the canal from Constanta-Sud port and brings fertilizers and rolled goods to Constanta port for export. A number of other countries have also begun to use the canal because of its obvious economic advantages. In the last few weeks ships of the shipping companies in the countries bordering on the Danube have sailed through the canal, and firms in Austria, Yugoslavia, Malaysia, India and the United States have expressed their intentions of using the canal.

Moreover, in continuation of the policy of developing the inland navigable waterways, construction has begun at Nicolae Ceausescu's direction on the Poarta Alba-Midia-Navodari Shipping Canal, which will connect Midia seaport with the Blue Highway and, via the Danube, with the Central European countries. The Draft

Directives of the 13th Party Congress call for equipping the nation with the new waterway, the Bucharest-Danube Canal, completing a network of inland waterways that will exploit the Danube's hydraulic potential, provide a direct connection with the seaports on the Black Sea and the industrial combines in the interior, and permit shipping at minimum costs and with major savings in fuels.

By the end of 1985 the River Fleet's carrying capacity will be 4 times greater than it was in 1965, and the river ports' handling capacity will be 6 times greater. The volume of freight shipped on the Danube will be 9.4 times greater at the end of 1985 than in 1965. The River Fleet has been equipped with modern high-capacity pushers (1,600 hp, 2,400 hp and 4,800 hp), and the unpropelled fleet with 1,500-ton, 2,000-ton and 3,000-ton barges. Moldova Veche, Tisovita, Calafat, Giurgiu, Oltenita, Calarasi and Macin ports have been modernized and developed, and modern ports have been constructed at Orsova, Zimnicea, the Galati CS [Iron and Steel Combine], Mahmudia, Tulcea and Sulina.

5186

CSO: 2700/51

PCI PAPER ON ROMANIA'S CENTRALIZED PLANNING

PM171500 Rome L'UNITA in Italian 12 Dec 84 p 7

[Arturo Barioli dispatch: "Romania Is Not Changing: The State Is All"]

[Text] Bucharest--Romania is swimming against the tide. Whereas almost all socialist countries are seeking ways of alleviating the constrictions of centralized planning so as to make production more flexible and to reintroduce market laws whose importance has been underestimated (demand, supply, profit, and so forth), Romania is setting its sights on an increased state role in all economic and social activity and elevates, both in practice and in its ideological formulations, the "irreplaceable role" of centralism. And whereas all the East European countries with planned economies are setting themselves both realistic and modest growth rates of about 2-3 percent a year, as a result of the world crisis, Romania, in its Eighth 5-Year Plan for 1985-90, is setting itself the ambitious target of increasing its national income by an annual average of 7.6-8.3 percent (industrial output will have to grow by 10 percent a year, as against the 6 percent of the 1980-85 period). According to Romania's leaders, there is a direct and complete correlation between centralized planning, an increased state role, and the chances of achieving a quantitative and qualitative great leap forward in their economy.

Objections that there must be something wrong with rigid centralized planning--if Hungary has turned toward a more flexible plan with only a few basic indicators; if China is moving toward a return to private enterprise, even in important sectors; and if in the Soviet Union itself multitudes of experiments are being conducted to streamline factories' activities--are either ignored or rejected out of hand. Speaking from the rostrum of the 13th Party Congress, Ceausescu was explicit. Controversially, he reasserted that "socialism and communism cannot be built successfully except on the basis of the workers' joint social ownership of all the means of production." Next he specified that: "The attainment of the objectives for the next 5 years and of Romania's development through the year 2000 requires as an objective necessity a growing state role in the planning, organization and unitary leadership of all economic and social activity on the basis of a single national plan." He went on: "I emphasize this because these issues are being debated internationally and all sorts of theories are being formulated about the relinquishment of leadership based on a single plan for economic and social development. We can state that the leadership of all activity in accordance with a

single conception based on democratic centralism will become all the more necessary as economic and social development increases and diversifies." We were given an explanation of the mechanisms of centralized planning--so formally reappraised in Romania--at the headquarters of the State Planning Committee by its director, Gheorghe Sica. Enterprises, he said, put their proposals for their particular sector to the central authorities, which examine them, correct them, and forward them to the ministries concerned. A further critical analysis of the proposals is carried out by the State Planning Committee, where they are collated with and set against the general requirements of the economy and adapted to development requirements and availability of funds, and where a plan is drawn up as a "balanced model." Next the plan is examined by the Higher Development Council, which amends it in accordance with the objectives set by the party congress and forwards it for any necessary adjustments to the Planning Committee. Last, it is discussed and adopted as law by the National Assembly. In other words, it is the planning arrangement typical of all East European countries until the 60s.

Dr Sica stressed that "the 5-year plan is a basic system that is gradually completed by annual plans, correcting and improving crop yields and international contracts and the progress of investments in accordance with technological and economic innovations." Furthermore the 5-year plan has to take increasing account of long-term development programs in certain sectors (energy, livestock raising, the system of water resources, and so forth). So planning is not static and rigid, but all changes are decided centrally.

But is absolutely all economic activity subject to plan directives? "We have," Dr Sica said, "a system of small commercial enterprises, services, and cottage industries largely organized into cooperatives, mainly in the countryside, to which, taking account of their characteristics, we apply only certain basic indicators--allocation of materials for production, payments to the state, export goals. A law has also been adopted permitting private individuals to take on the management of small stores, restaurants, and so forth on payment of a certain sum to the state. But we do not intend especially to encourage this kind of initiative. We must concentrate our efforts and our means on attaining the major objectives we have set ourselves, on the intensive development that we want to achieve in our country, bearing in mind that we can depend only on our own resources, since high interest rates have made loans prohibitively expensive and imperialist monetary maneuvers are having an increasingly onerous impact on developing countries."

So Romania is moving against the tide--a challenge, a surge of national pride verging on autarky and on the willful rejection of long-term considerations. To the extent of the self-imposition of huge sacrifices resulting from the allocation to accumulation of over 30 percent of the national income for the next 5-10 years.

CSO: 2020/40

REPORT ON DRAFT 1985 ECONOMIC PLAN

AU122049 Bucharest SCINTEIA in Romanian 14 Dec 84

[Text] Bucharest AGERPRES 12 December 1984--This document, presented by Stefan Birlea, chairman of the State Planning Committee, to the 12 December session of the Romanian parliament, shows that the respective bill, which is highly significant for the conclusion of the Seventh 5-Year Plan in good condition and provides solid bases for the fulfilment of the tasks and objectives set by the 13th RCP Congress, was worked out in close cooperation with enterprises, central departments, counties and central bodies, and debated at length during working people's general meetings. The plan was unanimously examined and approved by the joint plenary meeting of the CC of the RCP and the Supreme Council of Economic and Social Development, the plenum of the National Council of Working People and the Legislative Chamber of people's councils with a view to submitting it to the Grand National Assembly for endorsement.

The 1985 plan is underlain by the fundamental thesis contained in the report delivered by RCP General Secretary Nicolae Ceausescu to the 13th Party Congress on the growing role of the single national plan-in-[word indistinct] and organizing economic and social affairs.

In keeping with this orientation, the salient feature of next year's draft plan is the achievement of an intensive reproduction, the maximal utilization of the strong productive potential created in the years of socialist construction and especially in the last 20 years. The 1985 plan provides mainly for a faster economic growth rate than in the first years of the current quinquennium, development and modernization of industry, steady increase of farm production, further amplification of activities in the other economic branches, Romania's broader participation in the international division of labour, greater stress on qualitative aspects in all sectors.

The levels set in the draft plan are based on the results scored in the current 5-year period and aim at using production units at capacity and firmly applying the provisions of programmes regarding the growth of the raw materials and energy base, the reduction of material consumption and better capitalization of all resources, higher productivity and quality of products, just as higher efficiency and competitiveness in the foreign market.

The draft plan provides for the consistent implementation of the party policy of socialist industrialization, a decisive factor in the development of the national economy as a whole. Industrial production is envisaged to rise 7.5 percent following the modernization of production structures under the impact of a wider application of technical progress in the national economy.

Priority is further given to the steady growth of the raw materials and energy base, with emphasis on the increase of coal output which will stand at over 64 million tons. Next year, crude production will be of 12.6 million tons and methane output will stand at 33 thousand million cu.m. or so. Substantial growths are also provided for non-ferrous ores and non-metal substances. Electric power production will stand at about 77 thousand million kwh.

In the field of manufacturing industry, it is envisaged that the items structures will improve by developing high-tech productions which better capitalise raw materials and work force.

The rationale specified that in the metallurgical industry whose steel output will stand at 16 million tons, priority shall be given to the fabrication of high-quality steels the share of which will top 60 percent.

The machine-building industry will contribute some 38 percent to next year's industrial production growth providing for majority of machinery and equipment required by the investment programme as well as for important availabilities for export. Faster rates are stipulated for automation means and electronic computer technology.

The chemical industry, whose share in the overall industrial production is to top 12 percent, will focus on the faster growth of fine synthesis and small-tonnage sub-branches as well as on the manufacture of synthetic fibres and yarns, of by-chemicals which incorporate lower quantities of raw materials and energy and provide for a higher capitalization of production.

Next year's draft plan stipulates for the further complex and intensive development of agriculture, the growth of plant and animal production being one of the document's top priorities. Next year, overall farm production will rise 6.0-6.8 percent as [compared] to 1984. In the sector of plant production, about 30 million tons of cereals are to be achieved as well as considerable quantities of technical plants, vegetables, and fruit. In "zootechny"? livestock is also to grow and so will meat, milk, wool and other animal outputs. The necessary means are provided for the growth and modernization of the technical-material base of agriculture.

Next, the rapporteur specified that in the sphere of investment the 1985 draft plan stipulates that efforts shall be channelled toward completing works on the units under construction, hastening their and especially the production units' commissioning. Next year, by allotting one-third or so of the national income to accumulation, investment funds worth over 270 billion lei are to be made available for the development of the raw materials, energy and agriculture base, for the building of new units apt to increase exports

and cut on imports, raise productivity, lower material consumption and improve the technological and qualitative standards of products. More than 250 new industrial, farming and animal-breeding units will be put on stream in 1985.

As concerns foreign trade, the draft plan takes into consideration Romania's active, increasingly efficient participation in the international division of labour. Through its provisions, next year's plan ensures the expansion of economic cooperation and production specialization, of trade with CEMA countries, with all socialist states; provisions have also been made for the growth of economic relations with developing and developed capitalist countries.

The volume of foreign trade will go up by 15 percent as to 1984 on account of a market growth of export production, which will boost the offer of a wide-range, highly efficient exports, of the diversification of marketing forms and the broadening of export markets, with imports maintained within strict limits and aimed particularly at purchasing raw and subsidiary materials and the requisites for the achievement of top economic priorities.

The draft plan assigns a decisive role to qualitative factors of economic growth, stressing that an accelerated intensive-type reproduction will result in a national income growth outdistancing by 3 percentage points the growth of the social product, as well as in the fact that more than 85 percent of the national income growth will be achieved owing to higher social labour productivity, with more than one third of the industrial production growth up from 1984 achieved on account of better capitalizing raw materials and energy, productivity will increase by 14.7 percent in the all-country industry, and by 13.4 percent in construction-assembly activities.

In the fulfilment of next year's plan, a major role will be played by the implementation of the package of measures aimed at consolidating the economic and financial mechanism, with the principles of worker self-management and self-financing underlining all units' activity.

The economic and social development envisaged for the next year is subordinated to the supreme goal of the RCP policy of continually raising the people's living standards, both materially and spiritually, the document emphasises, pointing out that the growth of the national income and its appropriation for accumulation and consumption provide the prerequisites for an intensive development of production forces and a rise in all working people's incomes.

According to the draft plan in 1985 average nominal remuneration will increase to 2,980 lei, with average real remuneration 8 percent higher than in (?1980), farmer's real incomes per active person will go up by 12.2 percent. Sales through the socialist trade network will be worth 273.5 thousand million lei, and services will increase by some 15 percent.

Next year, 140,000 new dwellings will be made available and efforts will be further centered on the implementation of the national programme of territorial planning and urban and rural development. The draft plan also provides for a further betterment of education, the development of culture and better medicare and social assistance.

ROMANIA

BRIEFS

TELEVISION AGREEMENT WITH SPAIN--A collaboration understanding was signed in Bucharest on 30 November between the Romanian Radio and Television and the Spanish Radio and Television (RIVE). The document provides for the development of bilateral exchanges of radio and television programmes, aimed at a better mutual information, in accordance with the two bodies' programme requirements. [Text] [Bucharest AGERPRES in English 1934 GMT 30 Nov 84 AU]

NEW SHIPPING DEVELOPMENTS--Bucharest AGERPRES 5 December 1984--A new 5,000-ton ship, the 89th of the kind built at Oltenita shipyard, has recently been launched. The aforementioned shipyard, developed and updated in the last 20 years, also produces river-going ships of 2,400 tons for the transportation of passengers and general commodities as well as tugboats, dredgers, towboats, pilot cutters and others. More than half its production (30-35 ships) are annually exported. The production of ships and equipment for river transport has grown at a fast pace especially after 1970. The modernization extension of shipyards in Drobeta-Turnu Severin (which has recently celebrated its 125th foundation anniversary), in Giurgiu, Oltenita, Braila and Galati, the emergence of new ones at Tulcea and Orsova provided Romania with ships and other equipment necessary for the building of a powerful river-going fleet, contributing to substantial cuts on imports. Now, the production of the Orsova, Drobeta-Turnu Severin, Oltenita and Giurgiu is streamlined towards building river-going ships and specializing them. [Excerpt] [Bucharest AGERPRES in English 1430 GMT 5 Dec 84 AU]

CSO: 2020/40

YUGOSLAVIA

LAW ON SYSTEM OF SOCIAL PRICE CONTROLS

Belgrade SLUZBENI LIST SFRJ in Serbo-Croatian No 64, 28 Nov 84 pp 1407-1411

[Law enacted by the SFRY Assembly in a session of the Chamber of Republics and Provinces 27 November 1984 and signed by Veselin Djuranovic, chairman of the SFRY State Presidency, and Dusan Alimpic, president of the SFRY Assembly]

[Text] On the basis of Article 315, Point 3, of the Constitution of the Socialist Federal Republic of Yugoslavia, the State Presidency of the Socialist Federal Republic of Yugoslavia issues the following

UKASE  
PROMULGATING THE LAW ON THE SYSTEM OF SOCIAL PRICE CONTROLS

The Law on the System of Social Price Controls, enacted by the SFRY Assembly in a session of the Chamber of Republics and Provinces on 27 November 1984, is hereby promulgated.

Promulgation No 390  
Belgrade, 27 November 1984

Veselin Djuranovic (signed)  
Chairman of the SFRY  
Presidency

Dusan Alimpic (signed)  
President of the SFRY Assembly

LAW ON THE SYSTEM OF SOCIAL PRICE CONTROLS

I. Introductory Provision

Article 1

Basic relations in the setting of prices of products and services and the system of social price controls effected on the unified Yugoslav market shall be regulated by this law.

## II. Basic Relations in the Setting of Prices

### Article 2

Workers in basic organizations of associated labor shall independently, under conditions of interdependence, common ties and mutual responsibility with workers in other organizations of associated labor and other self-managed organizations and communities, set the prices of their products and services according to the conditions of the market.

Organizations of associated labor shall set forth in a general self-management act the procedure for the setting of prices, the rights and duties of the bodies of management of the organization of associated labor in the setting of prices, and the manner in which the workers shall be informed about the indicators that serve as the basis for setting prices.

### Article 3

Organizations of associated labor which together with other organizations of associated labor and self-managed organizations and communities regulate relations in their mutual linkage in the process of reproduction in the domains of production and exchange of products and services, and especially in the realization of joint revenues and other forms of self-management organization and cooperation, may in a self-management accord or contract on a lasting basis set forth the elements for setting prices or may set the prices.

In setting forth the elements for the setting of prices and in the setting of prices in a self-management accord or contract advantage must not be taken of a monopoly position, nor shall another organization of associated labor or other self-managed organization or community be placed in an unequal position in some other unlawful manner.

Prices on the unified Yugoslav market may not be set in a self-management accord or contract between organizations of associated labor producing the same kinds of products or performing the same kinds of services.

### Article 4

In line with the goals and in the context of the guidelines set forth in the social plans of sociopolitical communities and in enactments concerning fulfillment of those plans, the competent authorities in sociopolitical communities must take economic policy measures to influence the relations of supply and demand and to create conditions for the prices of products and services to be set according to the conditions of the market.

### Article 5

Consumers organized in local communities and other self-managed communities and organizations of consumers (hereinafter "organized consumers") may take the initiative for adoption of economic policy measures, may propose elements for the setting of prices of products and services important to the working

people and citizens for direct consumption, and propose to organizations of associated labor and other self-managing organizations and communities, economic chambers and competent authorities in sociopolitical communities that they reassess the bases used for the setting of prices.

The bodies of management of organizations of associated labor, corresponding bodies in other self-managing organizations and communities and economic chambers, and the competent authorities in sociopolitical communities have a duty to examine the initiative or proposal referred to in Paragraph 1 of this article and to notify the organized consumers of their position.

#### Article 6

Organizations of associated labor engaged in the production of energy and fuel resources and in rendering the services of rail transportation and postal, telegraph and telephone service shall set the prices of their products or services in line with the common elements for the setting of those prices set forth in planning and other documents at the federal level whereby economic policy is established, taking as their point of departure the level and relations of world prices and the long-term economic interest which producers and consumers have in the continuous and stable assurance of the production of these products and the performance of those services.

The enactments referred to in Paragraph 1 of this article shall provide for ongoing adjustment of relative price relations of products and services covered by that paragraph to the overall movement of the prices of products and services, and in the case of energy and fuel resources--appropriate price relations relative to the prices of industrial products and mutual price relations of the various forms of energy and energy carriers.

#### Article 7

The Federal Executive Council, in collaboration with the executive councils of the assemblies of the republics and the executive councils of the assemblies of the autonomous provinces, shall prescribe the support prices for the principal agricultural products as set forth in a planning document at the federal level.

The elements for forming the support prices referred to in Paragraph 1 of this article shall be set forth in planning or other enactments at the federal level whereby economic policy is set forth.

The support prices of the principal agricultural products are to safeguard the long-term economic interest of the producers in increasing the output of the principal agricultural products, and at the same time the price relations between farm products and the prices of products used in the process of producing those products shall be the point of departure in the setting of those prices.

The support prices referred to in Paragraph 1 of this article shall be prescribed no later than 15 September for the next year.

The competent bodies in the republics or autonomous provinces may prescribe support prices on agricultural products which have not been set forth in the planning documents referred to in Paragraph 1 of this article as basic agricultural products.

#### Article 8

The prices of products and services which are manufactured or performed on the basis of special orders or in accordance with special technical specifications and which are sold directly by the collection of bids or by public auction shall be set forth in a contract in a fixed amount and may be changed only by amending the contract and within the original life of the contract.

#### Article 9

The prices of products in the trade sector shall be formed according to the conditions of the market in a self-management accord on the pooling of labor and capital or a self-management accord on lasting business collaboration between organizations of associated labor engaged in production and organizations of associated labor engaged in commercial transactions in that such accords shall set forth the share of the production and distribution organizations of associated labor in the joint revenues or joint income, or in some other self-management accord concerning shares in the wholesale or retail price of those products.

#### Article 10

The provisions of this law which pertain to organizations of associated labor shall also apply to other self-managing organizations and communities, and shall be appropriately applied to other participants in production, the rendering of services and the distribution of products.

#### Article 11

The setting of prices and social price controls on armament and military equipment shall be regulated by another federal law.

### III. Social Price Controls

#### Article 12

Social price controls embrace the entire social activity of monitoring the movement of prices and the taking of measures to adjust overall relations on the market, especially in the stimulation of production and augmenting the size and makeup of supply and the creation of conditions so that the demand is met in size and in pattern and haphazard operation of the market is prevented.

Social price controls also include the taking of measures of price control proper pursuant to this law.

## Article 13

Workers in basic organizations of associated labor shall engage in social price control, taking as their point of departure the elements on the basis of which the bodies of management plan income and the indicators which serve as the basis for setting prices, as well as data on realization of planned income and the influence of the prices of products and services of basic organizations of associated labor on sales of those products on the domestic and foreign market, which they shall do by setting forth the price policy of basic organizations of associated labor.

Organizations of associated labor and other self-managing organizations and communities, under conditions of interdependence, common ties and mutual responsibility, shall exercise social price control by monitoring the exercise of mutual rights and the discharge of mutual responsibilities arising out of self-management accords or contracts whereby the elements for setting prices have been set forth or prices have been set, and also by comparing the prices of their products and services with the prices realized in the exporting and importing of those products and services.

Organizations of associated labor which are joined together in self-managing communities of interest shall exercise social price control by monitoring the impact of the prices of particular products and services on the economic position of producers or those rendering the services and that of the users of the products and services, and on the basis of such examinations institute initiative for adjustment and regulation of prices.

Economic chambers shall exercise social price control by undertaking activities and by furnishing specialized aid in advancement of the operation and business of organizations of associated labor and in adoption of standards and standard expenditures of current and past labor, and shall provide initiative for concluding self-management accords among interconnected organizations of associated labor, as well as by developing good business usages and responsibility of organizations of associated labor in their mutual relations and with respect to the social community.

The organized consumers shall exercise social price control by monitoring and examining the level and structure of the prices of products and services important to the working people and citizens for their direct consumption and by taking initiative for reassessment of the bases which have been used in setting prices.

The competent authorities in sociopolitical communities shall exercise social price control by taking economic policy measures to influence the relations of supply and demand on the market, by setting forth common elements for the setting of prices in planning and other legislation at the federal level, by establishing support prices of principal and other agricultural products, and, as an exception, by taking the measures of price control proper.

The economic policy measures referred to in Paragraph 6 of this article shall specifically be taken as follows: in the domain of joint policy of foreign

economic relations, joint monetary policy and the joint bases of credit policy, joint customs policy and foreign exchange policy, the policy governing distribution of the social product and income, the policy governing taxes and contributions, and the policy governing the formation and use of commodity and other reserves.

#### Article 14

Price bodies shall be formed in sociopolitical communities; their powers for jurisdiction shall be set forth in law and other regulations.

The price bodies shall perform the following functions:

- 1) monitor and analyze the movement of prices and supply and demand, the effect of economic policy measures and measures of price control proper on prices and the conduct of the established economic policy in the price field, and also the enforcement of laws and other regulations whereby relations in the price field are regulated;
- 2) monitor and analyze the impact of prices on relations in the realization and distribution of income within the limits of individual sectors, branches and groupings and the economy as a whole, the influence of price movements on the stability of the market, business costs of the economy and its various parts, the cost of living and the standard of living of the working people and citizens, and the impact of prices on progress along the main lines of social and economic development as set forth in social plans;
- 3) monitor the movement of world prices (import prices, export prices, exchange prices and foreign domicile prices), evaluate their movement and estimate their influence on the domestic economy's competitiveness on the foreign market;
- 4) estimate the movement of prices for the coming period, prepare the specialized analytical basis for economic policy in the price field in planning documents and propose enactment of economic policy measures and the undertaking of measures and activities to implement them;
- 5) propose the measures of price control proper to the competent body, enforce the measures of price control proper which they are empowered to enforce and monitor their enforcement;
- 6) and also perform other analytical, specialized and administrative functions in the price field to meet the needs of the competent authorities in the sociopolitical communities and to meet the needs of organizations of associated labor and other self-managing organizations and communities, as well as issuing publications on price relations and price levels and on the movement of prices on the market.

In performing the tasks and jobs referred to in Paragraph 2 of this article price authorities shall take as their particular point of departure an assessment of the position of the various sectors, branches and groupings and the

economy as a whole in primary distribution, efficiency in use of the factors of production, and competitiveness on the foreign market.

#### Article 15

The competent price authority shall designate those products and services for which organizations of associated labor must submit reports on prices for monitoring purposes, shall specify the data which the price report must contain, and the deadlines and manner of the filing of such data.

#### Article 16

In performing the functions and tasks set forth in this law price authorities shall cooperate with one another, with other agencies and sociopolitical communities, with self-managing organizations and communities, and with economic chambers.

Price authorities shall inform organizations of associated labor and other self-managing organizations and communities, economic chambers, bodies in sociopolitical communities, sociopolitical organizations and the organized consumers concerning occurrences in the movement of prices, price relations and the position of individual activities in primary distribution which they note in performing the functions and tasks within their competence, and they may propose that measures and activities be undertaken consistent with their rights and duties.

#### Article 17

Organizations of associated labor and other self-managing organizations and communities may institute proceedings in the Economic Chamber of Yugoslavia for reassessment and adjustment of price relations and the price level of particular products or services important to the entire country.

Upon the request of organizations of associated labor and other self-managing organizations and communities which are the purchasers of more than one-third of the value of the output of a particular product or service, the procedure of reassessment and adjustment of price relations and the price level of that product or service must be conducted as an obligatory requirement in the Economic Chamber of Yugoslavia.

The procedure for reassessment and adjustment of price relations and the price level of products and services shall be set forth by a general act of the Economic Chamber of Yugoslavia, pursuant to this law and the rights and duties of the Economic Chamber of Yugoslavia, and the activities, measures and decisions which may be taken in such proceedings shall be prescribed therein.

#### Article 18

The measures of price control proper shall be prescribed in exceptional situations, as follows:

- 1) if in spite of the measures of economic policy which have been taken major disturbances occur or could occur on the market and in the movement of prices or if achievement of the basic goals set forth in the social plan of Yugoslavia and other planning documents at the federal level is threatened;
- 2) if organizations of associated labor do not set the prices of products and services on conformity with the common elements set forth as referred to in Article 6 of this law;
- 3) in order to prevent the monopolistic setting of prices;
- 4) in order to set the sales prices of imported products and products from commodity reserves which are being used for intervention on the market.

Simultaneously with the taking of measures of price control proper in the context of Paragraph 1, Subparagraph 1, of this article, the competent authority in the sociopolitical community must enact or propose measures of economic policy to remove the causes for which that measure was taken.

#### Article 19

The following may be prescribed as the measures of price control proper: the setting of the highest prices or the highest price level, the procedure for setting prices, the granting of consent to prices or rate schedules, the maintenance of prices at the existing level, the return of prices to a particular level, assignment of the size of the share to cover distribution costs, and the obligation of advance notification of changes in the prices of products and services.

#### Article 20

A measure of price control proper may remain in effect no longer than 6 months.

If conditions on the market do not change or do not improve, the measure of price control proper may be extended, but the existence of the grounds for its retention must be ascertained once again every 6 months.

The competent body in the sociopolitical community which proposes extension of a measure of price control proper must file along with the proposal for extension of that measure an analysis of the effects of the economic and other measures taken, must present the grounds for extension of that measure, and must propose additional measures of economic policy.

The competent body in the sociopolitical community is required to report the extension of the measure referred to in Paragraph 2 of this article to the assembly of the sociopolitical community within 15 days from the date of extension of that measure.

## Article 21

When a measure of price control proper is prescribed, the point of departure shall be a real evaluation of the physical factors of production, assuming their optimum use, price levels and relations on the foreign market on which the products and services are exchanged, indicators of the efficiency of economic activity, and the purposes for which income is distributed.

Before prescribing a measure of price control proper the competent authority in the sociopolitical community is required to elaborate the criteria referred to in Paragraph 1 of this article on the basis of which that measure is prescribed and, at the request of organizations of associated labor and other self-managing organizations and communities, to facilitate examination of the document in which those criteria are elaborated.

## Article 22

The Economic Chamber of Yugoslavia may also propose a measure of price control proper so that the tasks referred to in Article 17 of this law might be performed.

## Article 23

The Federal Executive Council shall prescribe the measure of price control proper on products and services important to the entire country, in collaboration with the competent authorities of the republics and provinces.

## Article 24

For the purpose of this law products important to the entire country are all products except products in the following sectors: the crafts and trades and personal services, housing and municipal services and utilities, the caretaking of settlements and areas, and education, science, culture and information.

For the purpose of this law services important to the entire country are rail and air freight and passenger transportation and postal, telegraph and telephone services.

## Article 25

Should major disturbances come about in relations on the market and price movements so as to prevent or seriously threaten the conduct of the joint economic policy set forth in the social plan of Yugoslavia and so as to disrupt the unified Yugoslav market, the SFRY Assembly shall prescribe a measure of price control proper covering all products and services.

## Article 26

The federal administrative agency for prices shall perform the functions of social price control set forth in Article 14 of this law, within the limits of the rights and duties of the Federation.

If the Federal Executive Council prescribes as a measure of price control proper the granting of consent to prices or rate schedules or the obligation of prior reporting of price changes of products and services, the federal administrative agency for prices shall administer those measures and take actions to ensure their enforcement.

#### Article 27

So that cooperation is ensured in the price field, so that the initiatives, proposals and positions of federal administrative agencies are coordinated, and so that cooperation is ensured between federal administrative agencies and the administrative agencies of the republics and provinces, organizations of associated labor, self-managing communities of interest and other self-managing organizations and communities, sociopolitical organizations, economic chambers and other general associations, a council shall be formed in the federal administrative agency for prices.

The Federal Executive Council shall specify the makeup of the council, the length of the term of its members, shall appoint the chairman and members of the council from among federal administrative agencies and federal organizations, associations of associated labor and scientific organizations, and shall state which agencies and sociopolitical organizations shall designate their representatives on the council.

The council shall examine matters within the jurisdiction of the federal administrative agency for prices, shall furnish initiative, shall approve evaluations and shall take positions and give opinions and present proposals on these matters.

The council shall decide on initiatives, evaluations, positions, opinions or proposals which it issues, approves or adopts by a majority of the votes of its members.

The council shall adopt an operating procedure to govern its work.

The official who heads the federal administrative agency for prices is required to examine without delay an initiative, evaluation, position, opinion or proposal of the council and to take a position concerning them.

If the official who heads the federal administrative agency for prices does not accept the initiative, evaluation, position, opinion or proposal of the council, he shall inform the council and the official who heads the federal administrative agency competent for market affairs of the reasons why he has not accepted it.

If the initiative, evaluation, position, opinion or proposal of the council has to do with price policy, the conduct of that policy or other matters in the jurisdiction of the Federal Executive Council, the official who heads the federal administrative agency for prices is required to inform the Federal Executive Council of the reasons why he did not accept them.

#### IV. Punitive Provisions

##### Article 28

An organization of associated labor or other self-managing organization or community shall be fined not less than 200,000 dinars and not more than 1 million dinars for an economic violation in the following cases:

- 1) if in setting prices or in setting forth elements for the setting of prices in a self-management accord or contract it takes advantage of a monopoly position or if in some other unlawful manner it places another organization of associated labor or other self-managing organization or community in an unequal position (Article 3, Paragraph 2);
- 2) if the prices of products or services made or performed on the basis of special orders or to special technical specifications are not set in a fixed amount or are changed after expiration of the original life of the contract (Article 8);
- 3) if in setting the prices of its products and services it does not adhere to regulations on the measures of price control proper (Articles 19, 23 and 25);
- 4) if it raises the price of its product or service and in so doing does not apply the pricing procedure set forth in the provisions of this (Article 32).

The person responsible in the organization of associated labor or other self-managing organization or community shall also be fined not less than 10,000 and not more than 50,000 dinars for an act as described in Paragraph 1 of this article constituting an economic violation.

##### Article 29

An organization of associated labor or other self-managing organization or community shall be subject to a fine of not less than 20,000 and not more than 100,000 dinars for a misdemeanor in the following cases:

- 1) if it fails to set forth in a general self-management act the procedure for setting prices, the rights and duties of the bodies of management in setting prices and the manner in which the workers shall be informed about the indicators used as the basis for setting prices (Article 2, Paragraph 2);
- 2) if in a self-management accord or contract concluded between organizations of associated labor producing the same types of products or performing the same types of services it sets the prices on such products or services (Article 3, Paragraph 3).

The person responsible in the organization of associated labor or other self-managing organization or community shall also be subject to a fine of not less than 5,000 and not more than 20,000 dinars for an action as described in Paragraph 1 of this article constituting a misdemeanor.

### Article 30

An individual engaged in self-employment shall be subject to a fine of not less than 5,000 and not more than 50,000 dinars if he sells products or services at prices higher than the prices set by applying the measures of price control proper (Articles 19, 23 and 25).

### Article 31

In addition to the penalty for an economic violation under Article 28 and a misdemeanor under Articles 29 and 30 of this law, the protective measure of confiscation of the property gain realized by committing the economic violation or misdemeanor shall also be pronounced.

The property gain realized in the context of Paragraph 1 of this article is the difference between the price at which the goods were sold or the service rendered and the price set according to legislation.

### V. Transitional and Final Provisions

#### Article 32

The prices of products and services set in conformity with the regulations which have been in effect up to the day when this law takes effect shall remain in effect after that date and may be changed under the conditions, in the manner and by the procedure set forth in the provisions of this law and regulations enacted on the basis of it.

#### Article 33

On the basis of the concurrence of the competent agencies of the republics and provinces, in 1985 the Federal Executive Council shall fix the maximum level of the prices of products and services and pricing procedure on those products and services for which this is specified in the Resolution on Socioeconomic Development and Economic Policy of the SFRY in 1985.

#### Article 34

The Federal Executive Council shall prescribe for 1985 the procedure for setting prices of products in wholesale and retail trade and imported products.

#### Article 35

The Federal Executive Council shall prescribe those products and services on which organizations of associated labor shall be required in 1985 to submit reports on prices to organizations of associated labor which are the purchasers of those products within a period of 30 days before commencement of sale at those prices.

## Article 36

The following shall be done within 3 months from the date when this law takes effect:

- 1) the competent bodies in sociopolitical communities shall bring their regulations regulating relations in the price field into conformity with the provisions of this law;
- 2) organizations of associated labor and other self-managing organizations or communities shall set forth in a general self-management act the procedure for setting prices, the rights and duties of bodies of management of organizations of associated labor and other self-managing organizations or communities in setting prices, and the way in which the workers shall be informed about the indicators used as the basis for setting prices;
- 3) the Economic Chamber of Yugoslavia shall set forth in a general act the procedure and shall prescribe activities and measures in conformity with Article 17 of this law.

## Article 37

On the day when the federal administrative agency for prices commences its work, the Federal Community for Price Affairs shall terminate its activity.

## Article 38

The federal administrative agency for prices shall on the date of commencement of its work take over the assets, equipment and other property, archives and other documentation of the Federal Community for Price Affairs.

The federal administrative agency for prices may take over without competition personnel who worked in the Federal Community for Price Affairs and assign them to jobs and tasks in conformity with the document on job evaluation.

The personnel in the Federal Community for Price Affairs who are not taken over in the context of Paragraph 2 of this article shall have the rights and duties of workers in a federal administrative agency which has terminated operation as set forth in the Law on the Bases of the System of Government Administration and on the Federal Executive Council and Federal Administrative Agencies.

## Article 39

On the day when this law takes effect the Law on the Bases of the Price System and Social Price Controls (SLUZBENI LIST SFRJ, Nos 1, 1980; 38, 1980; and 21, 1984) and all federal regulations enacted on the basis of that law shall cease to be valid.

## Article 40

This law shall take effect on 1 January 1985.

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CSO: 2800/129

## YUGOSLAVIA

## ENERGY PRODUCTION, CONSUMPTION PLANS, 1985-2000

Zagreb NAFTA in Serbo-Croatian No 7-8, Jul-Aug 84 pp 328-430

[Text] Table 1. Primary Energy Production and Consumption in Yugoslavia

	unit of meas.	1 9 8 5 10 <sup>15</sup>	1 9 9 0 10 <sup>15</sup>	1 9 9 5 10 <sup>15</sup>	2 0 0 0 10 <sup>15</sup>	avg rate
<b>COAL</b>						
production	million	71.0	731.22	90.0	828.90	110.0
imports*	tons	3.7	116.18	4.6	144.44	5.55
consumption		74.7	847.40	94.6	973.34	115.5
<b>CRUDE PETROLEUM</b>						
production	"	5.0	219.80	5.5	241.78	6.8
imports	"	10.8	474.77	12.0	575.52	14.0
consumption	"	15.8	694.57	17.5	769.30	20.8
<b>NATURAL GAS</b>						
production	billion	4.0	144.00	5.0	180.00	7.0
imports	cubic	3.0	108.00	3.0	108.00	3.0
consumption	meters	7.0	252.00	8.0	288.00	10.0
<b>HYDROELECTRIC POWER</b>						
production	billion	29.0	104.40	35.0	126.00	43.0
consumption	kwh	29.0	104.40	35.0	126.00	43.0
<b>URANIUM</b>						
production	tons	120.0	55.81	120.0	55.81	55.81
imports	"	---	---	---	---	---
consumption		120.0	45.81	120.0	55.81	55.81
<b>OTHER FORMS OF ENERGY</b>						
production	---	---	10.00	---	20.00	36.00
consumption	---	---	10.00	---	20.00	36.00
<b>TOTAL PRIMARY ENERGY</b>						
production		1265.11	-----	1452.49	-----	310.54
imports		698.95	-----	779.96	-----	396.14
consumption		1964.14	-----	2232.45	-----	706.78
<b>SHARE OF IMPORTED ENERGY</b>						
elasticity coefficient		49.43 %		34.94 %		3.11 %
						28.34 %

\* -- imports of coking coal.

NOTE: 1 kwh = 3.6 MJ (860 kilocalories), whereas in the agreement 1 kwh = 10 MJ (2400 kilocalories) for 1985. For 1990 and 1995, 1 kwh = 9.21 MJ (2200 kilocalories), and for the year 2000, 1 kwh = 8.79 MJ (2100 kilocalories).

SOURCE: "Agreement on the Bases of Yugoslavia's Long-Range Plan and of Development of the Fuel and Power Industry up to the Year 2000," Federal Bureau for Social Planning and Federal Committee for Energy and Industry, pp 10 and 11.

Table 2. Consumption of Primary Energy in Yugoslavia, in %

	1985	1990	1995	2000
Coal	43.14	43.60	43.81	44.75
Crude petroleum	35.36	34.46	33.78	29.09
Natural gas	12.83	12.90	13.30	12.90
Hydroelectric power	5.32	5.64	5.72	5.46
Uranium	2.84	2.50	2.06	6.15
Other forms of energy	0.51	0.90	1.33	1.65
Total	100.00	100.00	100.00	100.00

SOURCE: "Agreement on the Bases of the Social Plan of Yugoslavia for Energy Development up to the Year 2000," Federal Bureau for Social Planning and Federal Committee for Energy and Industry, Belgrade, June 1983.

The table was prepared on the basis of the table on p 10 of that document ("Primary Energy Consumption") except that the remark made about the first table concerning the calculation of kwh of hydroelectric power applies to this table as well.

Table 3. Pattern of Primary Energy Consumption in Yugoslavia, in  $10^6$  tons of equivalent coal

	Variant 3 and Variant 5							
	1985		1990		1995		2000	
	Vari- ant 3	Vari- ant 5	Vari- ant 3	Vari- ant 5	Vari- ant 3	Vari- ant 5	Vari- ant 3	Vari- ant 5
1. Coal	24.04	24.34	31.76	33.92	41.89	49.26	50.89	63.07
2. Petroleum	25.00	25.36	24.76	25.51	24.41	26.00	26.55	29.60
3. Natural gas	4.67	4.72	7.63	7.78	9.87	10.64	12.79	13.84
4. Hydro power	3.81	3.81	4.80	4.80	5.78	5.78	6.77	6.77
5. Nuclear fuel	0.80	0.80	0.80	0.80	1.97	2.06	3.88	4.60
6. Firewood	1.39	1.40	1.54	1.60	1.70	1.74	1.66	1.88
7. Unconventional sources	--	--	--	--	0.20	0.22	0.74	0.84
Total	59.71	60.43	71.29	74.41	85.82	95.70	103.28	120.60

SOURCE: Strategija dugorocnog razvoja energetike Jugoslavije (Yugoslavia's Long-Range Energy Strategy), "Informator," Zagreb, pp 93-96.

Table 4. Pattern of Primary Forms of Energy in Yugoslavia (1985-2000), in %

	1985	1990	1995	2000
1. Coal variant 3	40.3	44.6	48.8	49.3
variant 5	40.3	45.6	51.5	52.3
2. Petroleum variant 3	41.9	34.7	28.5	25.7
variant 5	41.9	34.2	27.2	24.5
3. Natural gas variant 3	7.8	10.7	11.5	12.4
variant 5	7.8	10.4	11.1	11.6
4. Hydro power variant 3	6.4	6.7	6.7	6.5
variant 5	6.4	6.5	6.0	5.6
5. Nuclear fuel variant 3	1.3	1.1	2.3	3.8
variant 5	1.3	1.1	2.2	3.8
6. Firewood variant 3	2.3	2.2	2.0	1.6
variant 5	2.3	2.2	1.8	1.5
7. Unconventional sources variant 3	--	--	0.2	0.7
variant 5	--	--	0.2	0.7
Total	100.0	100.0	100.0	100.0

SOURCE: "Strategija dugorocnog razvoja energetike Jugoslavije," p 92.

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SMALL BUSINESS IN SERBIA TERMED 'INSIGNIFICANT'

Belgrade EKONOMSKA POLITIKA in Serbo-Croatian 1 Oct 84 pp 21-23

[Interview with Dr Stjepan Han, professor in the School of Economics at Subotica University, date and place not specified: "Still, Things Are Moving"]

[Text] One of the essential conditions for the recovery and stabilization of the Yugoslav economy is seen in the dynamic and broad development of what is referred to as small business. However, even in this sector we still have hardly any initial practical results, not to mention any of the desired economic and social benefits expected from development of small business. We talked about this with Dr Stjepan Han, professor at the School of Economics of Subotica University, immediately upon conclusion of the 2-day Conference on Organizing and Developing Small Business in Serbia, which Professor Han presided over. We are publishing a freely edited version of the interview.

EKONOMSKA POLITIKA: The long-range economic stabilization program states that small business is designated in all our programmatic commitments as an integral part of self-managed associated labor and as a permanent need of overall economic and social development. It would be good to repeat once again the real importance of this position, since it has turned out that many people have still been interpreting the commitments in such a way as to leave the private sector out of this integration of labor and view activities to develop small business as a short-lived campaign being conducted outside the economy to resolve certain transient economic and social difficulties.

Stjepan Han: It is certain that small business will become an integral part of the entire economic structure even in our country. But to become that, it must first exist. At present it doesn't. That is--it does exist, but its share in our total architecture is insignificant. Those estimates are optimistic which state that in Yugoslavia about 7 percent of income comes from small business and that it employs about 10 percent of the labor force. But even if they were accurate, these percentages are insignificant compared to the situation, say, in Hungary or Austria... not to mention the highly advanced countries, which are much further off from us. And indeed even within our own entire community, the percentages of the share of small business are insignificant compared to the situation in Slovenia.

The conclusion can be drawn from this that there is a rather firm correlation between the level of economic development and social prosperity on the one hand, and the share of small business in a country's entire economy on the other. Indeed, in the industrially advanced countries 20 percent or more of the national income comes from small business. In the United States this is more than 30 percent, in Japan more than two-thirds.... In short, the thesis of the Long-Range Economic Stabilization Program--that small business is an integral part of the economy as a whole--is something pertaining to the future, not to the present. Yet the situation is still worse in everyday practice. That is, even that little small business which we have is somehow regarded as a second-class economy, and the people engaged in it as second-class workers. In what is referred to as the private sector of small business people are subjected to political defamation, fiscal and administrative chicanery, and in any case they carry less weight in society than those who work in the large-scale economy, although in many respects it ought to be the other way around. After all, in our industry--as research has shown--productive work is done slightly more than 3 hours daily on the annual average. In small business, both in its public and private sectors, but especially the latter, people work at least 7 hours, and often even 10 hours or more a day. On that basis--if we believe in Article 11 of the SFRY Constitution--those workers ought to get personal incomes which are 2.5-fold, 3-fold, or 4-fold greater, assuming the same "value" of the work which they do. However, in our industry a high percentage of the workers have been given rudimentary training for the particular actions and operations which they perform, while the worker in small business must by and large be highly skilled--in the full sense of that word--he must be a craftsman. By those standards, then, the personal incomes of workers in small business ought to be increased still more. Far from it, that value which society places on small business, including its public sector, is derogatory to the workers employed in it. That is, small business will become an integral part of the entire economy when it has grown, and when society has radically altered its attitude toward it.

EP: A number of convincing reasons have already been presented to support such a change.

Han: We did that even at the last conference on organizing and developing small business in Serbia. Above all, the participants pointed out the economic imperative of developing small business. No reflections about whether it should or how much it should develop are suitable when we take into account that small business is a necessary complement of the large-scale economy and that one of the reasons why the productivity of our large-scale economy is as low as it is is that it is burdened with jobs that could be done much more productively, much more inexpensively and much more flexibly by small business. Then there is the argument that we cannot successfully mitigate the lasting problem of unemployment in Yugoslavia and resolve it in the foreseeable future without developing small business. This in itself would be convincing enough for anyone who is able to think. But for those who cannot there are other arguments concerning the role of small business in defense. They show that our conception of nationwide defense is unfeasible and indeed even unthinkable without developing a large number

of widely dispersed small facilities--from small machine shops and service shops to bakeries and other food producing establishments. Yet if someone should need even more convincing--we presented in the conference examples and experiences from other countries which have achieved good results in this area, countries which are economically more developed than we are and certainly are showing the road along which we should develop.

EP: Difficult obstacles cropped up in our country at the very beginning of that road--from the ideologized and indeed even dogmatized discussion of the growth of the private sector in socialist Yugoslavia, all the way to excessive laws and other regulations which complicate the procedure of obtaining various permits to open up shops, to hire workers, to purchase supplies....

Han: First of all, I cannot understand that fear of the private sector. Most of our land is in the hands of private owners, and that amounts to an incomparably greater value than the workshops, little cafes and other establishments of small business. Generally speaking, however, it is my impression that ideology is rarely involved to any degree in those discussions and in the resistance which you have mentioned. Quite a bit of resistance to development of small business comes, say, from associated labor itself--that is, from those whom small business is supposed to help in the course of development. Then there are also those who carry on work on the so-called "gray market." People who have steady employment, but who in the afternoon, and frequently even during working hours, begin their illegal work of servicing and repairing household appliances, automobiles, plumbing and wiring and numerous other jobs of a service nature in the small business field. The work organization provides this person with a personal income, all the social welfare benefits, and frequently even tools and perhaps even supplies, parts..., and the unfilled space for service activities in maintaining the important consumer goods which society has produced becomes a source of high income that is not taxed. Such individuals, it is certain, will quickly and easily come out against the private sector. Or, another example, if a private bakery or any other small business establishment begins to take customers away from some larger work organization, the conditions under which the small establishment operates will soon become worse in several ways. Yet we have all agreed that we dare no longer support the operation of those economic establishments which cannot manage to withstand the competition of even an incipient small business such as ours is, since that means that they are far from being able to withstand the incomparably stronger competitors on the foreign market.

It is of course impossible on an occasion like this to elaborate on all the obstacles to development of small business. But let us give some more, for example: the confusion which prevails in this area because the criteria and regulations vary from one republic or province to another. Thus in Croatia the critical point for capitalization is a private entrepreneur with 15 workers, while in Serbia it is one with 10.

I emphasize, however, that we do not by any means identify small business with private shops in the service field: for us it is always and in every case a sector that is both public and private and includes both production and services.

EP: A frequent argument to justify the resistance is the enrichment of owners of private shops.

Han: Enrichment can come from work that is legal or from criminal activity. If we are dealing with jobs that fall within the law, society ought to congratulate the workers whose earnings are high. After all, the more rich individuals are, the richer the society. It is true that here and there a few private businessmen emerge with unusually large income by the standards we have had up to now. But as a rule this has to do with products, services and shops which are quite scarce on the market. Here it is the monopoly position that brings the high earnings, that is, the lack of competition on the market, and at the same time the opstina authorities are making decisions not to issue any more licenses for such establishments.

Incidentally, it is permitted under our constitution to become rich through one's labor. But it does not bother us at all for a third-rate soccer player or fifth-rate singer to have tens of millions of dinars in the bank, but that kind of money will certainly bother many people if it has been earned by a private craftsman or tradesman.

EP: It is said that we need to define those lines of business and establishments which are to be developed only by the socialized sector, and on the other hand those lines of business which would also be left open to initiative in the private sector. Who is competent to offer such a definition?

Han: I do not understand this question. In the kind of society we are building the question of competence ought not to be raised at every turn within the limits of the law. The person who is constantly asking about jurisdiction is a subject, not the citizen of a self-managing socialist community. Everything that falls within the law should be left to the private initiative of individuals, of associated labor--of both the large-scale economy and small business, to the initiative of opstinas, local communities.... Finally, unless the personal initiative of individuals and their creative abilities are liberated, there cannot be any self-management either.

EP: There are increasingly obvious tendencies to "organize" the private sector of small business in craft and trade cooperatives, craft and trade centers, in local communities and other "socialized" forms.

Han: Cooperatives and also these other forms which you have mentioned can have great advantages and can greatly facilitate the work of craftsmen and tradesmen and others in small business. They can first of all obtain quite a bit of useful information about the demand for particular products and services; they can do a better job of organizing the representation of several craftsmen and tradesmen in carrying out a broad production program to meet the needs of large-scale economic organizations; they can organize more easily and effectively the purchasing of raw materials and production supplies; they can take over administrative and accounting functions.... They should, then, provide a service to the craftsmen and tradesmen in which the self-employed will have an interest arising out of their business.

Of course, along with all that, individuals must be guaranteed full freedom in choosing their line of business and the forms in which they wish to work.

EP: Yet what should the social community provide or do?

Han: It ought to guarantee that the constitution and laws are respected and operative, that operating conditions and conditions for earning income are equal, that tax policy is intelligent and fair.... The Long-Range Economic Stabilization Program states, for instance, that specialized education needs to be urgently and radically adapted to the needs of the workplace. Apprentices in our schools are specializing in trades that are too narrow, frequently only in individual operations in some work process. But in small business, as we have said, a worker is needed who is a craftsman with broad knowledge and abilities. So this is one of the jobs which the community could perform to help small business.

EP: After all that has been said, what in your opinion should be done so that small business would begin to develop more rapidly and strongly?

Han: The answer to that question is terribly simple. You have in fact heard it in our conference: "Strictly carry out what has been written in the Long-Range Economic Stabilization Program." After all, this is no longer the proposal of a program offered by what was popularly called the "Krajger Commission," or a proposal of the Federal Social Council for Problems of Economic Stabilization. This is today a program which has been adopted in the LCY Central Committee, in the Federal Conference of the SAWPY, in the Council of the Federation of Yugoslav Trade Unions, in the SFRY Assembly, in the Federal Executive Council.... There is no longer any room here for renewed discussion about what should be done, how it should be done...since time is not on our side. And we need to strengthen social ethics and social discipline, which we expect the discussion and conclusions of the 13th Meeting of the LCY Central Committee will contribute to.

[In box] Excerpts From the Conference on Organizing and Developing Small Business in Serbia

With respect to the monitoring of self-employment for tax purposes we are today where the most advanced countries were at the end of the 19th and beginning of the 20th century. The present situation suits profiteering more than anything else, those people who make a lot of money in 2 or 3 years and then move into another line of business, move to another opstina.... Because of cases like that, an adverse opinion of those who are self-employed has largely been created in society. It is also reflected in the position taken by the administrative agencies, and it is quite often encountered even in sociopolitical organizations. This duality between positions taken in resolutions on the development of small business and actual practice is not tenable, and there are many arguments to support the assertion that this is the most serious check on the development of this area, in Serbia more than in the more advanced republics.

Borislav B. Mitrovic and Branislav Stanojevic

Utilization of local sources of raw materials, waste and secondary raw materials contributes to the economic benefits of small business from the standpoint of utilizing what small business prevents from going to waste. This reduces shipping costs and direct production benefits are attained. Supplying the local market with products from local raw materials, aside from these benefits and the people it employs, also has a very favorable impact on the general economic potential, especially when small business develops in economically underdeveloped opstinas.

Dr Radmilo Todosijevic

In the process of very rapid industrialization of a country this is almost always done by investing in giants. That has also been the case in our own development. Regardless of whether we were right (about that), we must now think about optimization and social productivity. If we are to be more productive in the sphere of material production, we must free ourselves of influential factors which are having an adverse effect on productivity. Let us take the case of Crvena Zastava in Kragujevac. Today one has to wait at least 8 months to buy a car. Why? Would Zastava be able to increase the number it assembles and its output if it had more parts and if they arrived on time? If those two factors would not yield higher productivity, then that which is lowering productivity should be taken away from Zastava and placed where more favorable conditions exist for this.

Dr Slavko Popadic

[In box] An Ebbing in Slovenia

It is believed that exceptional attention is paid to small business in Slovenia and that its development has been more rapid and stable in that republic. The Federation of Slovenian Craft and Trade Associations has taken pains to show the true state of affairs with numerous indicators and to shatter illusions wherever they exist. The main point is that the growth rate of small business in Slovenia has been slowing down obviously in recent years and that it is below the Yugoslav average. The last year of the lengthy climb of self-employment was 1980, when the number of shops increased 7.3 percent and the number of persons employed 12.1 percent. That was the end of an exceptionally intensive period beginning in 1976, when on the annual average 1,368 establishments were opened in Slovenia and 1,770 new workers were hired, not counting the owners of the establishments. But even in 1981 there were 873 new establishments with 265 new people hired, and last year only 357 were opened, although the number of persons employed increased by 1,422, which is still 1.2 index points poorer than over the period 1976-1980.

The period of rapid development of small business in Slovenia coincides with the intensive return of workers employed abroad temporarily. It was during that period, for example, that 70 percent of all the private truckers were registered. It is a surprise that at a time of increasingly strained economic relations in that part of Yugoslavia with the highest level of industrial development there has been a slowing down of the growth of

self-employment, that is, the use of private capital to open up new jobs. Over the period 1980-1982 (the Federation of Slovenian Craft and Trade Associations has comparable data for that period) the number of new craft and trade establishments opened in Slovenia was five index points below the Yugoslav average. The share of Slovenian crafts and trades and small business fell from 12.2 to 11.6 percent of the entire country. In terms of the number of employees, the drop is still more striking: from 23.3 to 20.6 percent, which was also accompanied by a drop in the number of persons employed in the average shop (not including the owner) from 0.93 to 0.91. Over that same period the number employed in the average shop in Yugoslavia increased from 0.49 to 0.51, which shows a more favorable tendency than in Slovenia, but also in Yugoslavia as a whole there are far fewer shops in which someone is working in addition to the owner.

The Federation of Slovenian Craft and Trade Associations estimates that the economic situation must even in that republic bring about a revival of a small business sector that is granted recognition of its role as an outlet for the surplus manpower in the economy, as a flexible subcontractor for the economy capable of substituting for many imported components and especially because a strengthening of self-employment, particularly in the service sector, is part of the logic of modern industrial development. The sound and experienced organization of small business in Slovenia with craft and trade cooperatives, four of which were established even before the war, will make it easier to weather the crisis that has come about because the financial sources represented by those returning from abroad have dried up.

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GREATER UNITY SEEN IN TRADE UNION REORGANIZATIONS

Belgrad BORBA in Serbo-Croatian 27-28 Oct 84 p 5

[Article by Stjepan Rajkovic]

[Text] The 2-year debate on reform of the incomes policy, where the total workers' influence should ultimately come from, has helped to refine perceptions of necessary changes in the trade unions as well. The discussion of the Draft Resolution of the 13th session of the LCY Central Committee also contributed to more rapid determination of a common language on reorganization of the trade unions, a topic of considerable debate at the last 9th Congress of the Council of Trade Unions of Yugoslavia, which called for reforms. It mandated its forums to carry out reforms and "threatened" that if no agreement was reached, the next congress in May 1986 would pass a definite resolution about it.

The reader should recall that Yugoslav trade unions are organized in two ways, horizontally from the opstina via the province and republic to the federation, that is, according to sociopolitical communities, and "vertically" by industries, production, or branches (such as metalworkers, construction workers, miners, etc.). In Croatia and Slovenia, the specialized trade unions are organized conscientiously from the basic organization of associated labor to the republic level, while in Bosnia and Herzegovina they are only organized at the republic level; in other parts of the country these forms are mixed, so that in fact there are three models for organizing production trade unions, thus causing great difficulties for Yugoslav activity. This was the conclusion of specialists in evaluating the 6-million-strong organizations of professional tradesmen, which were restricted not only by republic and province but even by opstina.

This separation is still being criticized, for it prevents the expression and coordination of numerous class interests. In various debates of recent months, there have been more direct appeals from specialized trade unions, which seek more concrete actions relating to association, earnings and distribution of incomes, assessment of relative labor value, etc.

## Final Agreement

In seeking a joint resolution, two diametrically opposed models of trade union organization need to be reconciled, that of Bosnia and Hercegovina, which is based in the masses of workers, where the workers' actions are determined by forums, and that of Croatia, where interests are expressed from below, according to specialties, with two arguments conflicting so that the best parts of both models can be used to achieve a unified degree of organization in Yugoslav trade unions.

At several meetings of republic and province trade union leadership this year, time was given to analysis of this problem and in recent days a high degree of agreement was finally achieved on the trade union reorganization in favor of a more unified form of organizations and action.

It is also essential that more significance be given in Bosnia and Hercegovina as well to specialized trade unions whose agencies will not only be active at the republic level, as a form of labor, but also as a form of organization, for they will exist in the basic organizations of associated labor in both the opstina and the city, as is now the case in Croatia and Slovenia, and as is increasingly common after the last congress in other republics as well.

It was agreed that specialized trade union committees cannot be auxiliary bodies of the Yugoslav Trade Union Council on the republic or province level, but rather shall be independent; the councils will no longer be able to select or appoint committee members, including their presidents, to them, as is currently done in Bosnia and Hercegovina and Kosovo. Rather, they will be selected "from below."

In all opstinas and cities there would be committees of specialized trade unions selected directly from the base, which would answer to a committee of the Yugoslav Trade Union Council for their work, i.e., "upward", but also to the basic organizations "below". Thus a double connection will be established leading both upward and downward.

The term of office of all trade union bodies would be for 2 years, with optional reelection for another 2. Currently the term varies by republic. The larger specialized trade unions (metalworkers, construction workers, agriculture and others) would have professional trade union officials, i.e., presidents, especially in republic agencies and even in some cities. These duties are currently performed on a volunteer basis. For example, in Macedonia the smallest number of professional workers and skilled technicians are found in the trade unions.

The present statutes permit, and the future regulations will insist even more strongly, that trade unions be connected among each other in various manners. Thus, for example, the food processing workers and the like will be included within the framework of agriculture, in order to reduce the number of trade unions. Presently at the national level there are 15 councils of specialized trade unions, including: energy, agriculture, chemistry, construction,

transportation and communication, textiles, leather and shoes, forestry, metal processing, commerce, innkeeping and tourism, printing and journalistic activities, education and upbringing, health and social security, and justice and financial organizations.

There are differences in these features among the republics and provinces. In Slovenia there are 18 specialized trade unions, in Croatia 16, in Serbia 15, in Vojvodina 14, in Kosovo and Macedonia 12, and in Bosnia and Herzegovina and Montenegro 10 specialized trade unions each. Not all republics have all branches of the economy, so that there will not be all trade unions, but those in the republics and provinces must be so organized that all branches will be represented at the federation level with their own delegates.

If in some places the conditions for forming trade unions do not exist, some smaller trade unions can be attached to those most closely related to them, according to unified principles for the entire country.

#### Greater Influence on Incomes

As for the tasks of these trade unions, they are basically the same as before, except that they are more precise, and include involvement in working out incomes relationships, pooling of labor and resources, earning and distribution of income, self-organization of associated labor, working conditions, work competitions, etc. Existing documents of the Yugoslav Trade Union Council passed at the last congress, where a real storm developed around these questions, permit this kind of organization and allow for even broader resolutions.

It is debatable whether workers should first be enrolled in their specialized trade unions and thus in the Yugoslav Trade Union Council, as is presently done in Croatia, or directly in the Yugoslav Trade Unions via opstina trade union councils, as in Bosnia and Herzegovina.

It is acceptable, and permitted by present statutes, for specialized trade unions with their special interests to appear before public and delegate bodies, from the opstina to the federation, but there is also an obligation to coordinate such interests in the Yugoslav Trade Union Council.

In the efforts to associate labor and resources, to create production units and major systems, in which Bosnia and Herzegovina have gone the farthest, new forms of trade union ties have emerged: activity conferences in the republic committees, coordinating bodies in the Secretariat for Associated Labor Organizations, and similar possibilities for activity agreements of several basic organizations in banks, commercial associations and other forms of organization. Thus this is a reorganization in republics, provinces and the federation, but also a reorganization within production entities, and it is a step closer to the influence of workers on earning and distributing income. That is very significant for further class functioning, for now more than ever an absolutely concrete discussion and actions by the workers are necessary.

Many of those who have resisted trade union reorganization have in fact capitulated before tasks that are the topic of the day and of the moment, and under the pressure of debates on the draft resolutions of the 13th session of the LCY Central Committee.

After the numerous disagreements now behind us, it should be said that the most stubborn defenders of untenable resolutions of trade unions have been defeated. The Congress of Workers' Delegates long ago declared what kind of trade unions they want, and the trade union forums have spent a great deal of time in implementing those decisions.

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